

=====

OUTPUT 12

=====

MEM. STRG. USED 06360

01500 THRU 07623

10000 THRU 10233

LOK INSTR L1ID

L0

		0	COMA	PROG*12198*FACT*0GT*67
		1		REMARK*COMMAND TEST
01500	00 0000	2	COMA	0*
01501	44 2204	3		STRAL*ALPARN
01502	50 5020	4		SKP*20
01503	34 1505	5		JP*LOK+2
01504	34 1527	6		JP*C1
01505	76 7547	7		RJP*TYPE

SAVE INITIAL AL INPUT PARAMETER  
KEY 4, SET TO SUPPRESS TYPE-OUTS

SETUP TYPT? TYPC CHAN NO. - 1232/1532

INITIAL AL INPUT PARAMETER

MODIFY FOR N+1 BUFFER TERMINATION

TYPT\*\$CR\$COMMAND TEST\$CR\$ERROR DISPLAY AU,AL

01506	12 2204	10
01507	65 1511	11
01510	76 7602	12
01511	30 1512	13
01512	01 0000	
01513	76 4320	
01514	55 5541	
01515	56 4400	

ENTAL\*ALPARN

JPALP\*LOK+2

RJP\*IOSET

TYPT\*\$CR\$COMMAND TEST\$CR\$ERROR DISPLAY AU,AL

01516	64 4563
01517	64 7645
01520	62 6220
01521	62 0044
01522	51 6360
01523	54 4171
01524	00 4165
01525	14 4154

01526 77 7777

01527 70 0007

01530 44 1736

01531 40 1737

14

15

16

C1

ENTALK\*7

STRAL\*PASSC

CL\*SRERRF

SET COMMAND TEST PASS COUNT

SUBROUTINE ERROR FLAG

SHEET 439  
SHEET 1439  
SB-10163

REVISION

B

01532 12 1733 17  
01533 44 1541 20

01534 34 1540 21  
01535 12 1541 22  
01536 71 0001 23  
01537 44 1541 24  
01540 40 1734 25  
01541 50 7200 26  
01542 32 1734 27  
01543 42 1734 30

01544 31 1614 31  
01545 32 1734 32  
01546 50 5001 33  
01547 56 1735 34  
01550 34 1543 35  
01551 57 1736 36  
01552 34 1535 37  
01553 70 0001 40

01554 14 1740 41  
01555 44 1740 42  
01556 02 1741 43  
01557 63 1527 44  
01560 40 1740 45  
01561 12 1737 46  
01562 61 1600 47  
01563 50 5020 50

01564 34 1566 51  
01565 34 1576 52  
01566 30 1567 53  
01567 01 0000  
01570 76 4641  
01571 51 5445  
01572 44 1400  
01573 62 4543

01574 71 4354  
01575 45 7777

ENTAL\*COMA2  
STRAL\*COMA1

COMA3

JP\*COMA1-1  
ENTAL\*COMA1  
ADDALK\*1  
STRAL\*COMA1  
CL\*COMA5  
ENTICR\*0  
ENTB\*COMA5  
STRB\*COMA5

COMA1

COMA4

IRJPB\*COMA6  
ENTB\*COMA5  
SKP\*01  
BSK\*COMA7  
JP\*COMA4  
ISK\*PASSC  
JP\*COMA3  
ENTALK\*0001

ADDAL\*CNT  
STRAL\*CNT  
CHAL\*NYMB  
JPNOT\*C1  
CL\*CNT  
ENTAL\*SRERRF  
JPALZ\*GOMA10  
SKP\*20

JP\*LOK+2  
JP\*C2  
TYPT\*SCRSFAILED, RECYCLE

SET ICR INST

UPDATE ICR INST. TO NEXT B-BOX

B-BOX SAVER  
SET CURRENT ICR

ALL PASSES MADE  
NO DO EXIT  
COUNT CYCLES

UPDATE COUNT

FINISHED

NO

YES

WAS THERE AN ERROR

NO

KEY 4, SET TO SUPPRESS TYPE-OUTS

SHEET 440 REVISION  
SB-10163

01576	50	5604	54	C2	STOP*04
01577	34	1611	55		JP*COMA11
01600	50	5020	56	COMA10	SKP*20
01601	34	1603	57		JP*LOK+2
01602	34	1610	60		JP*C3
01603	30	1604	61		TYPT*OK, ENDSER
01604	01	0000			
01605	20	5314			
01606	00	4556			
01607	44	7677			
01610	50	5604	62	C3	STOP*04
01611	50	5004	63	COMA11	SKP*04
01612	55	1500	64		IJP*COMA
01613	34	1527	65		JP*C1
01614	00	2667	66	COMA6	0*TF10
01615	00	2740	67		0*TF11
01616	00	3014	70		0*TF12
01617	00	3065	71		0*TF13
01620	00	3753	72		0*TF32
01621	00	4044	73		0*TF33
01622	00	4213	74		0*TF36
01623	00	4303	75		0*TF37
01624	00	7033	76		0*TF70
01625	00	7135	77		0*TS73
01626	00	5336	100		0*TF46
01627	00	5456	101		0*TF47
01630	00	5040	102		0*TF44
01631	00	5207	103		0*TF45
01632	00	4560	104		0*TF42
01633	00	4706	105		0*TF43
01634	00	7323	106		0*TF74
01635	00	7407	107		0*TF75
01636	00	4376	110		0*TF40
01637	00	4437	111		0*TF41
01640	00	3140	112		0*TF14
01641	00	3165	113		0*TF15

KEY 4: SET TO SUPPRESS TYPE-OUTS

DO WE STAY IN

NO EXIT  
 REPEAT  
 TEST ENT AU  
 TEST AUB  
 TEST ENTAL  
 TEST ENTALB  
 TEST ENTB  
 TESTBB

TEST ENTBK  
 TEST ENTBKB  
 TEST ENTALK  
 TEST ENTSR  
 TEST STRAU  
 TEST STRAUB  
 TEST STRAL  
 TEST STRALB

TEST STRB  
 TEST STRBB  
 TEST STRADR  
 TEST STRSR  
 TEST CL  
 TEST CLB  
 TEST ADDAL  
 TEST ADDALB

01642 00 3300 114  
 01643 00 3337 115  
 01644 00 7103 116  
 01645 00 3217 117  
 01646 00 3253 120  
 01647 00 3372 121

01650 00 3431 122  
 01651 00 3462 123  
 01652 00 3523 124  
 01653 00 3562 125  
 01654 00 3634 126  
 01655 00 2310 127  
 01656 00 2365 130  
 01657 00 2563 131

01660 00 2624 132  
 01661 00 2425 133  
 01662 00 2501 134  
 01663 00 5600 135  
 01664 00 5711 136  
 01665 00 6004 137  
 01666 00 4136 140  
 01667 00 6360 141

01670 00 6441 142  
 01671 00 6531 143  
 01672 00 6604 144  
 01673 00 6701 145  
 01674 00 6717 146  
 01675 00 6756 147  
 01676 00 6774 150  
 01677 00 4166 151

01700 00 6150 152  
 01701 00 7522 153  
 01702 00 3662 154  
 01703 00 3707 155  
 01704 00 7261 156  
 01705 00 6241 157  
 01706 00 6312 160

0\*TF20  
 0\*TF21  
 0\*TF71  
 0\*TF16  
 0\*TF17  
 0\*TF22

0\*TF23  
 0\*TF24  
 0\*TF25  
 0\*TF26  
 0\*TF27  
 0\*TF02  
 0\*TF03  
 0\*TF06

0\*TF07  
 0\*TF04  
 0\*TF05  
 0\*TF51  
 0\*TF52  
 0\*TF53  
 0\*TF34  
 0\*TF60

0\*TF61  
 0\*TF62  
 0\*TF63  
 0\*TF64  
 0\*TF65  
 0\*TF66  
 0\*TF67  
 0\*TF35

0\*TF55  
 0\*TF76  
 0\*TF30  
 0\*TF31  
 0\*TF73  
 0\*TF56  
 0\*TF57

TEST ADDA  
 TEST ADDAB  
 TEST ADDALK  
 TEST SUBAL  
 TEST SUBALB  
 TEST SUBA

TEST SUBAB  
 TEST MULAL  
 TEST MULALB  
 TEST DIVA  
 TEST DIVAB  
 TEST CMAL  
 TEST CMALB  
 TEST CMSK

TEST CMSKB  
 TEST SLSA  
 TEST SLSUB  
 TEST SLSET  
 TEST SLCL  
 TEST SLCP  
 TEST JP  
 TEST JPAUZ

TEST JPALZ  
 TEST JPAUNZ  
 TEST JPALNZ  
 TEST JPAUP  
 TEST JPALP  
 TEST JPAUN  
 TEST JPALN  
 TEST JPB

TEST IJP  
 TEST RJP  
 TEST IRJP  
 TEST IRJPB  
 TEST BJP  
 TEST SK  
 TEST ISK



01707 00 6512 161  
 01710 00 6662 162  
 01711 00 6735 163  
 01712 00 7012 164  
 01713 00 6555 165  
 01714 00 6463 166  
 01715 00 6630 167

01716 00 6402 170  
 01717 00 4523 171  
 01720 00 4650 172  
 01721 00 4770 173  
 01722 00 5300 174  
 01723 00 5417 175  
 01724 00 5546 176  
 01725 00 5122 177

01726 00 5646 200  
 01727 00 5752 201  
 01730 00 6052 202  
 01731 00 6104 203  
 01732 00 6175 204  
 01733 50 7200 205  
 01734 00 0000 206  
 01735 00 0116 207

01736 00 0000 210  
 01737 00 0000 211  
 01740 00 0000 212  
 01741 00 0012 213

01742 00 0000 217

01743 46 7622 220  
 01744 44 7623 221  
 01745 12 2037 222  
 01746 52 2215 223  
 01747 44 2037 224

0\*TC61  
 0\*TC63  
 0\*TC65  
 0\*TC67  
 0\*TS62  
 0\*TS61  
 0\*TS63

0\*TS60  
 0\*TS41  
 0\*TS42  
 0\*TS43  
 0\*TS45  
 0\*TS46  
 0\*TS47  
 0\*TS44

0\*TS51  
 0\*TS52  
 0\*TS53  
 0\*TS54  
 0\*TS55  
 COMA2 ENTICR\*0  
 COMA5 0\*  
 COMA7 116\*

PASSC 0\*  
 SRERRF 0\*  
 CNT 0\*0  
 NYMB 0\*12  
 TFDIS PROG\*WHITNEY\*30APL64  
 REMARK\*ERROR DISPLAY SUBROUTINE FOR  
 REMARK\*TYPE 1 INSTRUCTIONS  
 TFDIS 0\*

STRAU\*SAVEU  
 STRAL\*SAVEL  
 ENTAL\*TFX  
 SLCL\*K1F  
 STRAL\*TFX

TEST JPEQ  
 TEST JPNOT  
 TEST JPMLEQ  
 TEST JPMGR  
 TEST CPAU  
 TEST CPAL  
 TEST CPA

TEST RND  
 TEST RSHAU  
 TEST RSHAL  
 TEST RSHA  
 TEST LSHAU  
 TEST LSHAL  
 TEST LSHA  
 TEST SF

TEST SKPNB0  
 TEST SKPOV  
 TEST SKPN0V  
 TEST SKPODD  
 TEST SKPEVN

770000

01750 50 5020 225

01751 34 1753 226

01752 34 2017 227

01753 50 7310 230

01754 75 1737 231

01755 50 7300 232

01756 10 2222 233

01757 12 2223 234

01760 50 4614 235

01761 50 4306 236

01762 16 2206 237

01763 51 2205 240

01764 44 2016 241

01765 12 2204 243

01766 50 4203 244

01767 52 2214 245

01770 02 2217 246

01771 63 2002 247

01772 12 2017 250

01773 51 2220 251

01774 44 2017 252

01775 44 2030 253

01776 12 2022 254

01777 51 2220 255

02000 44 2022 256

02001 44 2033 257

02002 30 2003 260

02003 01 0000

02004 76 4562

02005 62 2062

02006 00 4665

02007 56 4364

02010 51 2056

02011 00 4320

02012 44 4500

SKP\*20

JP\*LOK+2

JP\*TFD1

ENTSR\*10

STRSR\*SRERRP

ENTSR\*0

ENTAU\*BUFF1

ENTAL\*BUFF2

LSHAL\*12D

RSHA\*6

SUBAL\*K1A

SLSET\*K1

STRAL\*TFDIS1+P

REMARK\*IF 1232/1532 ON CHAN 0, MODIFY C REG DISPLAY TO 1

ENTAL\*ALPARM

RSHAL\*3

SLCL\*K3

CMAL\*K4

JPNOT\*TFDIS2

ENTAL\*TFD1

SLSET\*K3

STRAL\*TFD1

STRAL\*TFD3

ENTAL\*TFD2

SLSET\*K5

STRAL\*TFD2

STRAL\*TFD4

TFDIS2 TYPT\*\$CR\$ERROR FUNCTION CODE

DO WE PRINTOUT

YES

NO, DISPLAY

FORMAT ERROR I TYPE-OUT

404000

02013	77	7777			
02014	30	2015	261	TFDIS1	TYPT*XX
02015	01	0000			
02016	70	7077			
02017	50	1200	262	TFD1	OUT*0
02020	00	2037	263		0*TFX
02021	00	2037	264		0*TFX
02022	50	2600	265	TFD2	OUTOV*0
02023	71	0000	266		ADDALK*0
02024	10	7622	267		ENTAU*SAVEU
02025	12	7623	270		ENTAL*SAVEL
02026	50	5601	271		STOP*1
02027	40	2037	272		CL*TFX
02030	50	1200	273	TFD3	OUT*0
02031	00	2037	274		0*TFX
02032	00	2037	275		0*TFX
02033	50	2600	276	TFD4	OUTOV*0
02034	71	7777	277		ADDALK*7777
02035	50	5000	300		SKP*00
02036	55	1742	301		IJP*TFDIS
02037	00	0000	302	TFX	0*
			303	TSDIS	PROG*WHITNEY*30APL64
			304		REMARK*ERROR DISPLAY SUBROUTINE FOR
			305		REMARK*TYPE 2 INSTRUCTIONS
02040	00	0000	306	TSDIS	0*
02041	46	7622	307		STRAU*SAVEU
02042	44	7623	310		STRAL*SAVEL
02043	12	2037	311		ENTAL*TFX
02044	52	2216	312		SLCL*K16
02045	44	2037	313		STRAL*TFX
02046	50	5020	314		SKP*20
02047	34	2051	315		JP*LOK+2
02050	34	2125	316		JP*TSD1
02051	50	7310	317		ENTSR*10
02052	75	1737	320		STRSR*SRERRF
02053	50	7300	321		ENTSR*0

DISPLAY ERRORING FUNCT. CODE

CLEAR C REG.

777700

DO WE PRINTOUT  
YES  
NO, DISPLAY

SHEET 445  
SB-10163  
REVISION

0

## FORMAT ERROR II TYPE-OUT

02054 10 2222 322  
 02055 12 2223 323  
 02056 50 4614 324  
 02057 50 4706 325  
 02060 12 2224 326

ENTAU\*BUFF1  
 ENTAL\*BUFF2  
 LSHAL\*12D  
 LSHA\*6  
 ENTAL\*BUFF3

404040

02061 50 4614 327  
 02062 50 4314 330  
 02063 16 2207 331  
 02064 44 2123 332  
 02065 12 2225 333  
 02066 71 7737 334  
 02067 50 4614 335  
 02070 51 2221 336

LSHAL\*12D  
 RSHA\*12D  
 SUBAL\*K18  
 STRAL\*TSDIS1+2  
 ENTAL\*BUFF4  
 ADDALK\*7737  
 LSHAL\*12D  
 SLSET\*K6

02071 44 2124 337  
 02072 12 2204 340  
 02073 50 4203 341  
 02074 52 2214 342  
 02075 02 2217 343  
 02076 63 2107 344  
 02077 12 2125 345  
 02100 51 2220 346

STRAL\*TSDIS1+3  
 ENTAL\*ALPARN  
 RSHAL\*3  
 SLCL\*K3  
 CHAL\*K4  
 JPNOT\*TSDIS2  
 ENTAL\*TSO1  
 SLSET\*K5

02101 44 2125 347  
 02102 44 2136 350  
 02103 12 2130 351  
 02104 51 2220 352  
 02105 44 2130 353  
 02106 44 2141 354  
 02107 30 2110 355  
 02110 01 0000

STRAL\*TSO1  
 STRAL\*TSO3  
 ENTAL\*TSO2  
 SLSET\*K5  
 STRAL\*TSO2  
 STRAL\*TSO4

TSDIS2

TYPT\*SCRError FUNCTION CODE

02111 76 4562  
 02112 62 2062  
 02113 00 4665  
 02114 56 4364  
 02115 51 2056  
 02116 00 4320  
 02117 44 4500  
 02120 77 7777

02121	30	2122	356	TSDIS1	TYPT*XXXX	
02122	01	0000				
02123	70	7070				
02124	70	7777				
02125	50	1200	357	TSD1	OUT*0	DISPLAY ERRORING FUNCT. CODE
02126	00	2037	360		0*TFX	
02127	00	2037	361		0*TFX	
02130	50	2600	362	TSD2	OUTOV*0	
02131	71	0000	363		ADDALK*0	
02132	10	7622	364		ENTAU*SAVEU	
02133	12	7623	365		ENTAL*SAVEL	
02134	50	5601	366		STOP*1	
02135	40	2037	367		CL*TFX	
02136	50	1200	370	TSD3	OUT*0	CLEAR C REG.
02137	00	2037	371		0*TFX	
02140	00	2037	372		0*TFX	
02141	50	2600	373	TSD4	OUTOV*0	
02142	71	7777	374		ADDALK*7777	
02143	55	2040	375		IUP*TSDIS	
			376	TRAT	PROG*CASEY*30APL64	
			377		REMARK*THIS SUBROUTINE CONTAINS THE NORMAL	
			400		REMARK*CONSTANTS USED IN COMMAND AND B REG	
			401		REMARK*TESTS ALSO CONTAINS ERROR DISPLAY SUB	
02144	77	7777	402	TPAT	777777*	
02145	77	7777	403		777777*	
			404		DBLSET*	
02146	00	0000	405	TPAT1	0*	
02147	00	0000	406		0*	
02150	25	2525	407	TPAT2	252525*	
02151	25	2525	410		252525*	
02152	52	5252	411	TPAT3	525252*	
02153	52	5252	412		525252*	
02154	77	0000	413	TPAT4	77*0	
02155	77	0000	414		77*0	
02156	00	7777	415	TPAT5	7777*	
02157	00	7777	416		7777*	

02160	70	7070	417	TPAT6	707070*
02161	70	7070	420		707070*
02162	07	0707	421	TPAT7	070707*
02163	07	0707	422		070707*
02164	20	0001	423	TPAB	200001*
02165	30	0000	424		30*0
02166	00	0001	425	TPAB1	1*
02167	77	7776	426		777776*
02170	40	0000	427	TPAB2	40*0
02171	00	0505	430		505*
02172	31	2132	431	TPAB3	312132*
02173	57	7777	432		577777*
02174	10	7777	433	TPAB4	107777*
02175	27	7777	434		277777*
02176	01	0001	435	TPAB5	010001*
02177	67	7777	436		677777*
02200	00	0020	437	TPAB6	20*
02201	00	0021	440		21*
02202	00	0022	441	TPAB7	22*
02203	00	0041	442		41*
02204	00	0000	443	ALPARM	0*
02205	00	0077	444	K1	000077*
02206	40	4000	445	K1A	404000*
02207	40	4040	446	K1B	404040*
02210	00	7700	447	K2	007700*
02211	00	0037	450	K1C	000037*
02212	77	7700	451	K1D	777700*
02213	00	0001	452	K1E	000001*
02214	00	0037	453	K3	000037*
02215	77	0000	454	K1F	770000*
02216	77	7700	455	K1G	777700*
02217	00	0000	456	K4	000000*
02220	00	0001	457	K5	000001*
02221	00	7700	460	K6	007700*
02222	00	0000	461	BUFF1	0*
02223	00	0000	462	BUFF2	0*

02224	00	0000	463	BUFF3	0*
02225	00	0000	464	BUFF4	0*
02226	00	2020	465	TPAK	2020*
02227	00	5050	466	TPAK1	5050*
02230	00	2222	467	TPAK2	2222*
02231	00	7070	470	TPAK3	7070*
02232	00	3333	471	TPAK4	3333*
02233	77	5252	472	TPAK5	775252*
02234	00	2525	473	TPAK6	2525*
02235	77	7070	474	TPAK7	777070*
02236	00	0707	475		707*
02237	00	0010	476	TPAS	10*
02240	00	0017	477	TPAS1	17*
02241	00	0015	500	TPAS2	15*
02242	00	0012	501	TPAS3	12*
02243	00	0002	502	TPAS4	2*
02244	00	0004	503	TPAS5	4*
02245	00	0007	504	TPAS6	7*
02246	77	7775	505	TPAS7	777775*
02247	00	0020	506	TPAS10	00*0020
02250	00	0027	507	TPAS11	00*0027
02251	00	0035	510	TPAS12	00*0035
02252	00	0032	511	TPAS13	00*0032
02253	00	0000	512	TPAR	0*
			513		DBLSET*
02254	77	7776	514	TC0	777776*
02255	77	7777	515		777777*
02256	77	7777	516	TC01	777777*
02257	17	7777	517		177777*
02260	01	0000	520	TC02	01*0
02261	37	7777	521	TC03	377777*
02262	00	0000	522	TC04	0*
02263	20	0000	523		20*0
02264	50	0000	524	TCUT	50*0
02265	47	7777	525	TCUT1	477777*
02266	67	0000	526	TCUT2	67*0

02267	07	7777	527	TCUT3	077777*
02270	70	0000	530	TCUT4	70*0
02271	34	3434	531	TCUT5	343434*
02272	11	3663	532	TCUT6	113663*
02273	66	4114	533	TCUT7	664114*
02274	00	0042	534	SCCNT	0*42
02275	00	0000	535	SAVEB	0*
			536	TFSH1	PR06*SCOTT*30APL64
02276	00	0000	537	TFSH1	0*
02277	70	0022	540		ENTALK*22
02300	44	2306	541		STRAL*TSH
02301	55	2276	542		IJP*TFSH1
			543	TFSH2	PR06*SCOTT*30APL64
02302	00	0000	544	TFSH2	0*
02303	70	0017	545		ENTALK*17
02304	44	2306	546		STRAL*TSH
02305	55	2302	547		IJP*TFSH2
02306	00	0000	550	TSH	0*
02307	00	0000	551	TSCOT	0*
			552	TF02	PR06*SCOTT*30APL64
			553		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.
			554		REMARK*CORRECT PATTERN IN AU
			555		REMARK*INCORRECT PATTERN IN AL
02310	00	0000	556	TF02	0*
02311	70	0060	557		ENTALK*60
02312	44	2222	560		STRAL*BUFF1
02313	70	0062	561		ENTALK*62
02314	44	2223	562		STRAL*BUFF2
02315	12	2322	563		ENTAL*TF022*2
02316	44	2037	564		STRAL*TFX
02317	76	2302	565		RJP*TFSH2
02320	10	2146	566		ENTAU*TPAT1
02321	12	2146	567		ENTAL*TPAT1
02322	02	2147	570		CMAL*TPAT1+1
02323	61	2326	571		JPEQ*LOK+3
02324	76	1742	572	TF022	RJP*TFDIS
					COMPARE AL TO Y 02
					SET TYPEOUT BUFFER
					TO CODES FOR 02
					SET UP
					ERROR DISPLAY
					SET UP SHIFT
					CORRECT TO AU
					CLR AL
					TEST FUNC
					CHECK OK
					ERROR DISPLAY



02325 55 2310 573  
 02326 10 2166 574  
 02327 02 2166 575  
 02330 61 2324 576  
 02331 70 0001 577  
 02332 02 2166 600

02333 63 2324 601  
 02334 50 4601 602  
 02335 02 2166 603  
 02336 61 2324 604  
 02337 57 2306 605  
 02340 34 2334 606  
 02341 76 2302 607  
 02342 70 7776 610

02343 10 2254 611  
 02344 02 2254 612  
 02345 63 2324 613  
 02346 50 4601 614  
 02347 02 2254 615  
 02350 61 2324 616  
 02351 57 2306 617  
 02352 34 2346 620

02353 70 0000 621  
 02354 02 2254 622  
 02355 65 2357 623  
 02356 34 2324 624  
 02357 70 7776 625  
 02360 10 2166 626  
 02361 02 2166 627  
 02362 67 2364 630

02363 34 2324 631  
 02364 55 2310 632

02365 00 0000 637

TF024

TF025

TF03

TF03

IJP\*TF02  
 ENTAU\*TPAB1  
 CMAL\*TPAB1  
 JPEQ\*TF022  
 ENTALK\*1  
 CMAL\*TPAB1

JPN0T\*TF022  
 LSHAL\*1  
 CMAL\*TPAB1  
 JPEQ\*TF022  
 ISK\*TSH  
 JP\*TF024  
 RJP\*TFSH2  
 ENTALK\*7776

ENTAU\*TC0  
 CMAL\*TC0  
 JPN0T\*TF022  
 LSHAL\*1  
 CMAL\*TC0  
 JPEQ\*TF022  
 ISK\*TSH  
 JP\*TF025

ENTALK\*0  
 CMAL\*TC0  
 JPMLEQ\*LOK\*2  
 JP\*TF022  
 ENTALK\*7776  
 ENTAU\*TPAB1  
 CMAL\*TPAB1  
 JPMGR\*LOK\*2

JP\*TF022  
 IJP\*TF02

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*

ERROR EXIT  
 CORRECT TO AU  
 TEST FUNC  
 ERROR JUMP  
 SET AL TO 000001  
 TEST FUNC

ERROR JUMP  
 SHIFT PATTERN  
 TEST FUNC  
 ERROR JUMP  
 ALL PATTERNS CHECKED  
 NO CONTINUE  
 SET UP SHIFT  
 SET AL TO 777776

CORRECT TO AU  
 TEST FUNC  
 ERROR JUMP  
 SHIFT PATTERN  
 TEST FUNC  
 ERROR JUMP  
 ALL PATTERNS CHECKED  
 NO CONTINUE

CLR AL  
 TEST FUNC  
 CHECK OK  
 ERROR JUMP  
 SET AL TO 777776  
 CORRECT TO AU  
 TEST FUNC  
 CHECK OK

ERROR JUMP  
 EXIT

COMPARE AL TO Y+B 03

02366 70 0060 640  
 02367 44 2222 641  
 02370 70 0063 642  
 02371 44 2223 643  
 02372 12 2401 644  
 02373 44 2037 645  
 02374 44 2306 646

02375 36 0000 647  
 02376 12 2254 650  
 02377 44 2307 651  
 02400 10 2307 652  
 02401 03 2307 653  
 02402 61 2405 654  
 02403 76 1742 655  
 02404 34 2413 656

02405 50 4601 657  
 02406 03 2307 660  
 02407 61 2403 661  
 02410 44 2307 662  
 02411 56 2202 663  
 02412 34 2417 664  
 02413 12 2306 665  
 02414 44 2401 666

02415 44 2406 667  
 02416 55 2365 670  
 02417 12 2401 671  
 02420 71 7776 672  
 02421 44 2401 673  
 02422 44 2406 674  
 02423 12 2307 675  
 02424 34 2400 676

677

700

701

702

703

02425 00 0000

ENTALK\*60  
 STRAL\*BUFF1  
 ENTALK\*63  
 STRAL\*BUFF2  
 ENTAL\*TF032-2  
 STRAL\*TFX  
 STRAL\*TSH

ENTBK\*0  
 ENTAL\*TC0  
 STRAL\*TSC0T  
 ENTAU\*TSC0T  
 CMALB\*TSC0T  
 JPEG\*LOK+3  
 RJP\*TF015  
 JP\*TR03

TF032

LSHAL\*1  
 CMALB\*TSC0T  
 JPEG\*TF032  
 STRAL\*TSC0T  
 BSK\*TPAB7  
 JP\*LOK+5  
 ENTAL\*TSH  
 STRAL\*TF032-2

TR03

STRAL\*TF032+3  
 IJP\*TF03  
 ENTAL\*TF032-2  
 ADDALK\*7776  
 STRAL\*TF032-2  
 STRAL\*TF032+3  
 ENTAL\*TSC0T  
 JP\*TF032-3

TF04

PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*

TF04

SET TYPEOUT BUFFER  
 TO CODES FOR 03

SET UP  
 ERROR DISPLAY  
 SAVE FUNC

CLR B  
 SET AL TO 777776  
 SAVE PATTERN  
 CORRECT TO AU  
 IS AL CORRECT  
 CHECK OK  
 ERROR DISPLAY  
 RESTORE TEST

SHIFT PATTERN  
 IS AL NOT EQUAL  
 ERROR JUMP  
 SAVE PATTERN  
 ALL PATTERNS CHECKED  
 NO CONTINUE  
 SET AL TO ORIG  
 RESTORE FUNC

RESTORE FUNC  
 EXIT  
 SET AL EQUAL FUNC  
 ADDRESS -1  
 RESET FUNC  
 RESET FUNC  
 RESTORE PATTERN  
 CONTINUE TEST

SELECTIVE SUB

02426	70	0060	704
02427	44	2222	705
02430	70	0064	706
02431	44	2223	707
02432	12	2436	710
02433	44	2037	711
02434	10	2146	712
02435	12	2151	713
02436	04	2150	714
02437	02	2150	715
02440	63	2471	716
02441	10	2156	717
02442	12	2154	720
02443	04	2156	721
02444	02	2144	722
02445	63	2471	723
02446	10	2152	724
02447	12	2146	725
02450	04	2144	726
02451	02	2152	727
02452	63	2477	730
02453	04	2150	731
02454	63	2475	732
02455	10	2144	733
02456	04	2152	734
02457	02	2153	735
02460	63	2477	736
02461	10	2162	737
02462	12	2167	740
02463	04	2154	741
02464	02	2235	742
02465	61	2470	743
02466	10	2235	744
02467	76	1742	745
02470	55	2425	746
02471	10	2150	747

TR04  
TR040

ENTALK\*60  
STRAL\*BUFF1  
ENTALK\*64  
STRAL\*BUFF2  
ENTAL\*LOK\*4  
STRAL\*TFX  
ENTAU\*TPAT1  
ENTAL\*TPAT2+1  
SLSU\*TPAT2  
CMAL\*TPAT2  
JPNOT\*TR040  
ENTAU\*TPAT5  
ENTAL\*TPAT4  
SLSU\*TPAT5  
CMAL\*TPAT  
JPNOT\*TR040  
ENTAU\*TPAT5  
ENTAL\*TPAT1  
SLSU\*TPAT  
CMAL\*TPAT3  
JPNOT\*TR044  
SLSU\*TPAT2  
JPALNZ\*TR043  
ENTAU\*TPAT  
SLSU\*TPAT3  
CMAL\*TPAT3+1  
JPNOT\*TR044  
ENTAU\*TPAT7  
ENTAL\*TPAT1+1  
SLSU\*TPAT4  
CMAL\*TPAK7  
JPEQ\*TR04+1  
ENTAU\*TPAK7  
RJP\*TFDIS  
IJP\*TF04  
ENTAU\*TPAT2

SET TIMEOUT BUFFER  
TO CODES FOR 04  
SET UP  
ERROR DISPLAY  
CLR AU  
SET AL TO 252525  
SEL SUB 252525  
IS AL CORRECT  
ERROR JUMP  
SET AU TO 007777  
SET AL TO 770000  
SEL SUB 007777  
IS AL CORRECT  
ERROR JUMP  
SET AU TO 525252  
CLR AL  
SEL SUB 777777  
IS AL CORRECT  
ERROR JUMP  
SEL SUB 252525  
ERROR JUMP  
SET AU TO 777777  
SEL SUB 525252  
IS AL CORRECT  
ERROR JUMP  
SET AU TO 070707  
SET AL TO 777776  
SEL SUB 770000  
IS AL CORRECT  
YES EXIT  
CORRECT TO AU  
ERROR DISPLAY  
EXIT  
CORRECT TO AU

02472	34	2467	750		JP*TR04	DISPLAY
02473	10	2144	751	TR041	ENTAU*TPAT	CORRECT TO AU
02474	34	2467	752		JP*TR04	DISPLAY
02475	10	2146	753	TR043	ENTAU*TPAT1	CORRECT TO AU
02476	34	2467	754		JP*TR04	DISPLAY
02477	10	2152	755	TR044	ENTAU*TPAT3	CORRECT TO AU
02500	34	2467	756		JP*TR04	DISPLAY
			757	TF05	PROG*CASEY*30APL64	
			760		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			761		REMARK*CORRECT PATTERN IN AU	
			762		REMARK*INCORRECT PATTERN IN AL	
02501	00	0000	763	TF05	Q*	SEL SUB Y+B
02502	70	0060	764		ENTALK*60	SET TYPEOUT BUFFER
02503	44	2222	765		STRAL*BUFF1	TO CODES FOR 05
02504	70	0065	766		ENTALK*65	
02505	44	2223	767		STRAL*BUFF2	
02506	12	2513	770		ENTAL*LOK*5	SET UP
02507	44	2037	771		STRAL*TFX	ERROR DISPLAY
02510	32	2166	772		ENTB*TPAB1	SET B TO 1
02511	10	2146	773		ENTAU*TPAT1	CLR AU
02512	12	2151	774		ENTAL*TPAT2+1	SET AL TO 252525
02513	05	2151	775		SLSUB*TPAT3+1	SEL SUB 525252
02514	02	2150	776		CMAL*TPAT2	IS AL CORRECT
02515	63	2553	777		JPNOT*TR050	ERROR JUMP
02516	32	2146	1000		ENTB*TPAT1	CLR B
02517	10	2156	1001		ENTAU*TPAT5	SET AU TO 007777
02520	12	2154	1002		ENTAL*TPAT4	SET AL TO 770000
02521	05	2156	1003		SLSUB*TPAT5	SEL SUB 007777
02522	02	2144	1004		CMAL*TPAT	IS AL CORRECT
02523	63	2555	1005		JPNOT*TR051	ERROR JUMP
02524	32	2167	1006		ENTB*TPAB1+1	SET B TO MINUS 1
02525	10	2152	1007		ENTAU*TPAT3	SET AU TO 525252
02526	12	2146	1010		ENTAL*TPAT1	CLR AL
02527	05	2147	1011		SLSUB*TPAT1+1	SEL SUB 777777
02530	02	2146	1012		CMAL*TPAT1	IS AL CORRECT
02531	63	2557	1013		JPNOT*TR052	ERROR JUMP

02532 32 2243 1014  
 02533 05 2146 1015  
 02534 63 2561 1016  
 02535 32 2246 1017  
 02536 10 2144 1020

02537 05 2154 1021  
 02540 02 2153 1022  
 02541 63 2557 1023  
 02542 32 2244 1024  
 02543 10 2162 1025  
 02544 12 2167 1026  
 02545 05 2150 1027  
 02546 02 2235 1030

02547 61 2552 1031  
 02550 10 2235 1032  
 02551 76 1742 1033  
 02552 55 2501 1034  
 02553 10 2150 1035  
 02554 34 2551 1036  
 02555 10 2144 1037  
 02556 34 2551 1040

02557 10 2152 1041  
 02560 34 2551 1042  
 02561 10 2146 1043  
 02562 34 2551 1044  
 1045  
 1046  
 1047  
 1050

02563 00 0000 1051  
 02564 70 0060 1052  
 02565 44 2222 1053  
 02566 70 0066 1054  
 02567 44 2223 1055  
 02570 12 2576 1056  
 02571 44 2037 1057  
 02572 76 2302 1060

ENTB\*TPAS4  
 SLSUB\*TPAT2+2  
 JPALNZ\*TR053  
 ENTB\*TPAS7  
 ENTAU\*TPAT

SLSUB\*TPAT3+2  
 CMAL\*TPAT3+1  
 JPNOT\*TR052  
 ENTB\*TPAS5  
 ENTAU\*TPAT7  
 ENTAL\*TPAB1+1  
 SLSUB\*TPAT4+4  
 CMAL\*TPAK7

JPEQ\*TR05+1  
 ENTAU\*TPAK7  
 RJP\*TFDIS  
 IJP\*TF05  
 ENTAU\*TPAT2  
 JP\*TR05  
 ENTAU\*TPAT  
 JP\*TR05

ENTAU\*TPAT3  
 JP\*TR05  
 ENTAU\*TPAT1  
 JP\*TR05

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL

0\*  
 ENTALK\*60  
 STRAL\*BUFF1  
 ENTALK\*66  
 STRAL\*BUFF2  
 ENTAL\*TF063+2  
 STRAL\*TFX  
 RJP\*TFSH2

SET B TO 2  
 SEL SUB 252525  
 ERROR JUMP  
 SET B TO MINUS 2  
 SET AU TO 777777

SEL SUB 525252  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 4  
 SET AU TO 070707  
 SET AL TO 777776  
 SEL SUB 770000  
 IS AL CORRECT

YES EXIT  
 CORRECT TO AU  
 ERROR DISPLAY  
 EXIT  
 CORRECT TO AU  
 DISPLAY  
 CORRECT TO AU  
 DISPLAY

CORRECT TO AU  
 DISPLAY  
 CORRECT TO AU  
 DISPLAY

COMPARE MASK 06  
 SET TYPEOUT BUFFER  
 TO CODES FOR 06

SET UP  
 ERROR DISPLAY  
 SET UP SHIFT

02573 10 2144 1061  
 02574 70 0001 1062  
 02575 44 2307 1063  
 02576 06 2307 1064  
 02577 61 2603 1065  
 02600 10 2307 1066

TF063

ENTAU\*TPAT  
 ENTALK\*1  
 STRAL\*TSCOT  
 CMSK\*TSCOT  
 JPEQ\*LOK\*4  
 ENTAU\*TSCOT

MASK TO AU  
 SET AL TO 000001  
 SAVE AL  
 TEST FUNC  
 CHECK OK  
 CORRECT TO AU

02601 76 1742 1067  
 02602 55 2563 1070  
 02603 50 4601 1071  
 02604 06 2307 1072  
 02605 67 2600 1073  
 02606 57 2306 1074  
 02607 34 2575 1075  
 02610 76 2302 1076

RJP\*TFDIS  
 IJP\*TF06  
 LSHAL\*1  
 CMSK\*TSCOT  
 JPMGR\*TF063  
 ISK\*TSH  
 JP\*TF063-3  
 RJP\*TF5H2

ERROR DISPLAY  
 ERROR EXIT  
 SHIFT PATTERN  
 IS AL NOT EQUAL  
 ERROR JUMP  
 ALL PATTERNS CHECKED  
 NO CONTINUE  
 SET UP SHIFT

02611 70 7776 1077  
 02612 44 2307 1100  
 02613 06 2307 1101  
 02614 63 2600 1102  
 02615 50 4601 1103  
 02616 06 2307 1104  
 02617 67 2621 1105  
 02620 34 2600 1106

TF065

ENTALK\*7776  
 STRAL\*TSCOT  
 CMSK\*TSCOT  
 JPNOT\*TF063  
 LSHAL\*1  
 CMSK\*TSCOT  
 JPMGR\*LOK\*2  
 JP\*TF063

SET AL TO 777776  
 SAVE AL  
 TEST FUNC  
 ERROR JUMP  
 SHIFT PATTERN  
 IS AL UNEQUAL  
 YES CONTINUE  
 ERROR JUMP

02621 57 2306 1107  
 02622 34 2612 1110  
 02623 55 2563 1111

TF07

ISK\*TSH  
 JP\*TF065  
 IJP\*TF06

ALL PATTERNS CHECKED  
 NO CONTINUE  
 EXIT

02624 00 0000 1116

TF07

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*

COMPARE MASK Y+B 07

02625 70 0060 1117  
 02626 44 2222 1120  
 02627 70 0067 1121  
 02630 44 2223 1122  
 02631 12 2641 1123  
 02632 44 2037 1124

ENTALK\*60  
 STRAL\*BUFF1  
 ENTALK\*67  
 STRAL\*BUFF2  
 ENTAL\*TF072-2  
 STRAL\*TFX

SET TIMEOUT BUFFER  
 TO CODES FOR 07

SET UP  
 ERROR DISPLAY

02633	44	2666	1125
02634	76	2302	1126
02635	36	0000	1127
02636	10	2144	1130
02637	70	0001	1131
02640	44	2307	1132
02641	07	2307	1133
02642	61	2651	1134

02643	10	2307	1135
02644	76	1742	1136
02645	12	2666	1137
02646	44	2641	1140
02647	44	2652	1141
02650	55	2624	1142
02651	50	4601	1143
02652	07	2307	1144

02653	67	2643	1145
02654	56	2306	1146
02655	34	2657	1147
02656	34	2645	1150
02657	44	2307	1151
02660	12	2641	1152
02661	71	7776	1153
02662	44	2641	1154

02663	44	2652	1155
02664	12	2307	1156
02665	34	2641	1157
02666	00	0000	1160
			1161
			1162
			1163
			1164

02667	00	0000	1165
02670	70	0061	1166
02671	44	2222	1167
02672	70	0060	1170

STRAL\*TELM  
 RJP\*TF072  
 ENTBK\*0  
 ENTAU\*TPAT  
 ENTALK\*1  
 STRAL\*TSCOT  
 CMSKB\*TSCOT  
 JREQ\*TF074-1

TF072  
 ENTAU\*TSCOT  
 RJP\*TFDIS  
 ENTAL\*TELM  
 STRAL\*TF072-2  
 STRAL\*TF074  
 IJP\*TF07  
 LSHAL\*1  
 TF074  
 CMSKB\*TSCOT

JPMGR\*TF072  
 BSK\*TSH  
 JP\*LOK+2  
 JP\*TF072+2  
 STRAL\*TSCOT  
 ENTAL\*TF072-2  
 ADDALK\*7776  
 STRAL\*TF072-2

STRAL\*TF074  
 ENTAL\*TSCOT  
 JP\*TF072-2

TELM  
 TF10

0\*  
 PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AL  
 REMARK\*INCORRECT PATTERN IN AU

TF10

0\*  
 ENTALK\*61  
 STRAL\*BUFF1  
 ENTALK\*60

SAVE ORIG FUNC  
 SET UP SHIFT  
 CLR B  
 MASK TO AU  
 SET AL TO 000001  
 SAVE AL  
 IS AL CORRECT  
 YES CONTINUE

CORRECT TO AU  
 ERROR DISPLAY  
 SET AL TO ORIG  
 RESTORE FUNC  
 RESTORE FUNC  
 EXIT  
 SHIFT PATTERN  
 TEST FUNC

ERROR JUMP  
 ALL PATTERNS CHECKED  
 NO CONTINUE  
 YES EXIT  
 SAVE AL  
 FUNC TO AL  
 ADDRESS -1  
 RESET FUNC

RESET FUNC  
 RESTORE AL  
 CONTINUE CHECK

ENTER AU 10  
 SET TIMEOUT BUFFER  
 TO CODES FOR 10

02673 44 2223 1171  
02674 12 2676 1172

02675 44 2037 1173  
02676 10 2144 1174  
02677 12 2145 1175  
02700 06 2256 1176  
02701 63 2736 1177  
02702 10 2146 1200  
02703 12 2147 1201  
02704 06 2256 1202

02705 63 2736 1203  
02706 10 2150 1204  
02707 12 2151 1205  
02710 06 2256 1206  
02711 63 2736 1207  
02712 10 2152 1210  
02713 12 2153 1211  
02714 06 2256 1212

02715 63 2736 1213  
02716 10 2154 1214  
02717 12 2155 1215  
02720 06 2256 1216  
02721 63 2736 1217  
02722 10 2156 1220  
02723 12 2157 1221  
02724 06 2256 1222

02725 63 2736 1223  
02726 10 2160 1224  
02727 12 2161 1225  
02730 06 2256 1226  
02731 63 2736 1227  
02732 10 2162 1230  
02733 12 2163 1231  
02734 06 2256 1232

02735 61 2737 1233  
02736 76 1742 1234

TF100

STRAL\*BUFF2  
ENTAL\*LOK+2

STRAL\*TFX  
ENTAU\*TPAT  
ENTAL\*TPAT+1  
CMSK\*TC01  
JPNOT\*TF100  
ENTAU\*TPAT1  
ENTAL\*TPAT1+1  
CMSK\*TC01

JPNOT\*TF100  
ENTAU\*TPAT2  
ENTAL\*TPAT2+1  
CMSK\*TC01  
JPNOT\*TF100  
ENTAU\*TPAT3  
ENTAL\*TPAT3+1  
CMSK\*TC01

JPNOT\*TF100  
ENTAU\*TPAT4  
ENTAL\*TPAT4+1  
CMSK\*TC01  
JPNOT\*TF100  
ENTAU\*TPAT5  
ENTAL\*TPAT5+1  
CMSK\*TC01

JPNOT\*TF100  
ENTAU\*TPAT6  
ENTAL\*TPAT6+1  
CMSK\*TC01  
JPNOT\*TF100  
ENTAU\*TPAT7  
ENTAL\*TPAT7+1  
CMSK\*TC01

JPEQ\*TF100+1  
RJP\*TFDIS

SET UP

ERROR DISPLAY  
SET AU ALL ONES  
SET AL ALL ONES  
AU EQUAL AL  
ERROR JUMP  
CLR AU  
CLR AU  
AU EQUALS AL

ERROR JUMP  
SET AU 252525  
SET AL 252525  
AU EQUAL AL  
ERROR JUMP  
SET AU 525252  
SET AL 525252  
AU EQUAL AL

ERROR JUMP  
SET AU 770000  
SET AL 770000  
AU EQUAL AL  
ERROR JUMP  
SET AU 007777  
SET AL 007777  
AU EQUAL AL

ERROR JUMP  
SET AU 707070  
SET AL 707070  
AU EQUAL AL  
ERROR JUMP  
SET AU 070707  
SET AL 070707  
AU EQUAL AL

YES EXIT  
ERROR DISPLAY



02737	55	2667	1235	IJP*TF10	EXIT
			1236	PROG*CASEY*30APL64	
			1237	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			1240	REMARK*CORRECT PATTERN IN AL	
			1241	REMARK*INCORRECT PATTERN IN AU	
02740	00	0000	1242	0*	ENTER AU + B
02741	70	0061	1243	ENTALK*61	SET TYPEOUT BUFFER
02742	44	2222	1244	STRAL*BUFF1	TO CODES FOR 11
02743	70	0061	1245	ENTALK*61	
02744	44	2223	1246	STRAL*BUFF2	
02745	12	2750	1247	ENTAL*LOK+3	SET UP
02746	44	2037	1250	STRAL*TFX	ERROR DISPLAY
02747	32	2166	1251	ENTB*TPAB1	PLUS ONE TO B
02750	11	2144	1252	ENTAUB*TPAT	SET AU TO ALL ONES
02751	12	2145	1253	ENTAL*TPAT+1	SET AL TO ALL ONES
02752	06	2256	1254	CMSK*TC01	AU EQUAL AL
02753	63	3012	1255	JPNOT*TF110	ERROR JUMP
02754	32	2167	1256	ENTB*TPAB1+1	MINUS ONE TO B
02755	11	2146	1257	ENTAUB*TPAT1	SET AU TO ALL ONES
02756	12	2144	1260	ENTAL*TPAT	SET AL TO ALL ONES
02757	06	2256	1261	CMSK*TC01	AU EQUAL AL
02760	63	3012	1262	JPNOT*TF110	ERROR JUMP
02761	32	2243	1263	ENTB*TPAS4	PLUS TWO TO B
02762	11	2144	1264	ENTAUB*TPAT	SET AU TO ZEROS
02763	12	2147	1265	ENTAL*TPAT1+1	SET AL TO ZEROS
02764	06	2256	1266	CMSK*TC01	AU EQUAL AL
02765	63	3012	1267	JPNOT*TF110	ERROR JUMP
02766	32	2146	1270	ENTB*TPAT1	CLR B
02767	11	2150	1271	ENTAUB*TPAT2	SET AU TO 252525
02770	12	2151	1272	ENTAL*TPAT2+1	SET AL TO 252525
02771	06	2256	1273	CMSK*TC01	AU EQUAL AL
02772	63	3012	1274	JPNOT*TF110	ERROR JUMP
02773	32	2244	1275	ENTB*TPAS5	PLUS 4 TO B
02774	11	2144	1276	ENTAUB*TPAT	SET AU TO 252525
02775	12	2151	1277	ENTAL*TPAT2+1	SET AL TO 252525
02776	06	2256	1300	CMSK*TC01	AU EQUAL AL

02777 63 3012 1301  
 03000 32 2245 1302  
 03001 11 2144 1303  
 03002 12 2152 1304  
 03003 06 2256 1305  
 03004 63 3012 1306

03005 32 2246 1307  
 03006 11 2162 1310  
 03007 12 2161 1311  
 03010 06 2256 1312  
 03011 61 3013 1313  
 03012 76 1742 1314  
 03013 55 2740 1315

TF110

TF12

1316

1317

1320

1321

TF12

1322

1323

1324

1325

1326

03014 00 0000  
 03015 70 0061  
 03016 44 2222  
 03017 70 0062  
 03020 44 2223

03021 10 3023 1327  
 03022 46 2037 1330  
 03023 12 2144 1331  
 03024 10 2145 1332  
 03025 02 2256 1333  
 03026 63 3063 1334  
 03027 12 2146 1335  
 03030 10 2147 1336

03031 02 2147 1337  
 03032 63 3063 1340  
 03033 12 2150 1341  
 03034 10 2151 1342  
 03035 02 2151 1343  
 03036 63 3063 1344  
 03037 12 2152 1345

JPNOT\*TF110

ENTB\*TPAS6

ENTAUB\*TPAT

ENTAL\*TPAT3

CMSK\*TC01

JPNOT\*TF110

ENTB\*TPAS7

ENTAUB\*TPAT7

ENTAL\*TPAT6+1

CMSK\*TC01

JPEQ\*TF110+1

RJP\*TFDIS

IJP\*TF11

PROG\*CASEY\*30APL64

REMARK\*ERROR DISPLAY: FUNCT. CODE IN C REG.

REMARK\*CORRECT PATTERN IN AU

REMARK\*INCORRECT PATTERN IN AL

0\*

ENTALK\*61

STRAL\*BUFF1

ENTALK\*62

STRAL\*BUFF2

ENTAU\*LOK+2

STRAU\*TFX

ENTAL\*TPAT

ENTAU\*TPAT+1

CMAL\*TC01

JPNOT\*TF120

ENTAL\*TPAT1

ENTAU\*TPAT1+1

CMAL\*TPAT1+1

JPNOT\*TF120

ENTAL\*TPAT2

ENTAU\*TPAT2+1

CMAL\*TPAT2+1

JPNOT\*TF120

ENTAL\*TPAT3

ERROR JUMP

PLUS 7 TO B

SET AU TO 525252

SET AL TO 525252

AU EQUAL TO AL

ERROR JUMP

MINUS 2 TO B

SET AU TO 707070

SET AL TO 707070

AU EQUAL AL

YES EXIT

ERROR DISPLAY

EXIT

ENTER AL

SET TYPEOUT BUFFER  
TO CODES FOR 12

SET UP

ERROR DISPLAY

SET AL TO ALL ONES

SET AU TO ALL ONES

IS AL CORRECT

ERROR JUMP

CLR AL

CLR AU

IS AL CORRECT

ERROR JUMP

SET AL TO 252525

SET AU TO 252525

IS AL CORRECT

ERROR JUMP

SET AL TO 525252

03040 10 2153 1346  
 03041 02 2153 1347  
 03042 63 3063 1350  
 03043 12 2154 1351  
 03044 10 2155 1352  
 03045 02 2155 1353  
 03046 63 3063 1354

03047 12 2156 1355  
 03050 10 2157 1356  
 03051 02 2157 1357  
 03052 63 3063 1360  
 03053 12 2160 1361  
 03054 10 2161 1362  
 03055 02 2161 1363  
 03056 63 3063 1364

03057 12 2162 1365  
 03060 10 2163 1366  
 03061 02 2163 1367  
 03062 61 3064 1370  
 03063 76 1742 1371  
 03064 55 3014 1372  
 1373  
 1374

03065 00 0000 1375  
 03066 70 0061 1376  
 03067 44 2222 1377  
 03070 70 0063 1400  
 03071 44 2223 1401  
 03072 10 3075 1402  
 1403  
 1404

03073 46 2037 1405  
 03074 32 2166 1406  
 03075 13 2144 1407  
 03076 10 2144 1410  
 03077 02 2144 1411

TF120

TF13

TF13

ENTAU\*TPAT3+1  
 CMAL\*TPAT3+1  
 JPNOT\*TF120  
 ENTAL\*TPAT4  
 ENTAU\*TPAT4+1  
 CMAL\*TPAT4+1  
 JPNOT\*TF120

ENTAL\*TPAT5  
 ENTAU\*TPAT5+1  
 CMAL\*TPAT5+1  
 JPNOT\*TF120  
 ENTAL\*TPAT6  
 ENTAU\*TPAT6+1  
 CMAL\*TPAT6+1  
 JPNOT\*TF120

ENTAL\*TPAT7  
 ENTAU\*TPAT7+1  
 CMAL\*TPAT7+1  
 JPEQ\*TF120+1  
 RJP\*TFD15  
 IJP\*TF12

PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL

0\*  
 ENTALK\*61  
 STRAL\*BUFF1  
 ENTALK\*63  
 STRAL\*BUFF2  
 ENTAU\*LOK+3

STRAU\*TFX  
 ENTB\*TPAB1  
 ENTALB\*TRAT  
 ENTAU\*TPAT  
 CMAL\*TPAT

SET AU TO 525252  
 IS AL CORRECT  
 ERROR JUMP  
 SET AL TO 770000  
 SET AU TO 770000  
 IS AL CORRECT  
 ERROR JUMP

SET AL TO 007777  
 SET AU TO 007777  
 IS AL CORRECT  
 ERROR JUMP  
 SET AL TO 707070  
 SET AU TO 707070  
 IS AL CORRECT  
 ERROR JUMP

SET AL TO 070707  
 SET AU TO 070707  
 IS AL CORRECT  
 YES EXIT  
 ERROR DISPLAY  
 EXIT

ENTER AL + B 13  
 SET TYPEOUT BUFFER  
 TO CODES FOR 13

SET UP

ERROR DISPLAY  
 PLUS ONE TO B  
 SET AL TO ALL ONES  
 SET AU TO ALL ONES  
 IS AL CORRECT

03100	63	3136	1412
03101	32	2167	1413
03102	13	2146	1414
03103	10	2144	1415
03104	02	2144	1416
03105	63	3136	1417
03106	32	2243	1420
03107	13	2144	1421
03110	10	2147	1422
03111	63	3136	1423
03112	32	2146	1424
03113	13	2150	1425
03114	10	2151	1426
03115	02	2151	1427
03116	63	3136	1430
03117	32	2244	1431
03120	13	2144	1432
03121	10	2151	1433
03122	02	2151	1434
03123	63	3136	1435
03124	32	2245	1436
03125	13	2144	1437
03126	10	2152	1440
03127	02	2152	1441
03130	63	3136	1442
03131	32	2246	1443
03132	13	2162	1444
03133	10	2160	1445
03134	02	2160	1446
03135	61	3137	1447
03136	76	1742	1450
03137	55	3065	1451
			1452

TF130

TF14

JPNOT\*TF130  
 ENTB\*TPAB1+1  
 ENTALB\*TPAT1  
 ENTAU\*TPAT  
 CMAL\*TPAT  
 JPNOT\*TF130  
 ENTB\*TPAS4  
 ENTALB\*TPAT  
 ENTAU\*TPAT1+1

JPALNZ\*TF130  
 ENTB\*TPAT1  
 ENTALB\*TPAT2  
 ENTAU\*TPAT2+1  
 CMAL\*TPAT2+1  
 JPNOT\*TF130  
 ENTB\*TPAS5  
 ENTALB\*TPAT

ENTAU\*TPAT2+1  
 CMAL\*TPAT2+1  
 JPNOT\*TF130  
 ENTB\*TPAS6  
 ENTALB\*TPAT  
 ENTAU\*TPAT3  
 CMAL\*TPAT3  
 JPNOT\*TF130

ENTB\*TPAS7  
 ENTALB\*TPAT7  
 ENTAU\*TPAT6  
 CMAL\*TPAT6  
 JPEQ\*TF130+1  
 RJP\*TFDIS  
 IJP\*TF13

PROG\*SCOTT\*30APL64

REMARK\*ERROR DISPLAY: FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL

ERROR JUMP  
 MINUS ONE TO B  
 SET AL TO ALL ONES  
 SET AU TO ALL ONES  
 IS AL CORRECT  
 ERROR JUMP  
 PLUS TWO TO B  
 CLR AL  
 CLR AU

ERROR JUMP  
 CLR B  
 SET AL TO 252525  
 SET AU TO 252525  
 IS AL CORRECT  
 ERROR JUMP  
 PLUS 4 TO B  
 SET AL TO 252525

SET AU TO 252525  
 IS AL CORRECT  
 ERROR JUMP  
 PLUS 7 TO B  
 SET AL TO 525252  
 SET AU TO 525252  
 IS AL CORRECT  
 ERROR JUMP

MINUS 2 TO B  
 SET AL TO 707070  
 SET AU TO 707070  
 IS AL CORRECT  
 YES EXIT  
 ERROR DISPLAY  
 EXIT

SHEET 462 REVISION  
 SB-10163

B

03140 00 0000 1456  
 03141 70 0061 1457  
 03142 44 2222 1460

03143 70 0064 1461  
 03144 44 2223 1462  
 03145 12 3151 1463  
 03146 44 2037 1464  
 03147 12 2152 1465  
 03150 10 2146 1466  
 03151 14 2150 1467  
 03152 61 3155 1470

03153 76 1742 1471  
 03154 55 3140 1472  
 03155 32 2261 1473  
 03156 73 3163 1474  
 03157 10 2261 1475  
 03160 02 2261 1476  
 03161 63 3153 1477  
 03162 55 3140 1500

03163 14 2166 1501  
 03164 34 3156 1502

03165 00 0000 1503  
 03166 70 0061 1504

03167 44 2222 1505  
 03170 70 0065 1506  
 03171 44 2223 1507  
 03172 12 3176 1510  
 03173 44 2037 1511  
 03174 36 0001 1512  
 03175 70 0001 1513  
 03176 15 2165 1514

03177 10 2243 1521

TF14

0\*  
 ENTALK\*61  
 STRAL\*BUFF1

ENTALK\*64  
 STRAL\*BUFF2  
 ENTAL\*TF142+2  
 STRAL\*TFX  
 ENTAL\*TPAT3  
 ENTAU\*TPAT1  
 ADDAL\*TPAT2  
 JPALZ\*LOK\*3

TF142

RJP\*TFDIS  
 IJP\*TF14  
 ENTB\*TC03  
 BJP\*TF145  
 ENTAU\*TC03  
 CMAL\*TC03  
 JPNOT\*TF142  
 IJP\*TF14

TF145

ADDAL\*TPAB1  
 JP\*TF142+3

TF15

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL

TF15

0\*  
 ENTALK\*61

STRAL\*BUFF1  
 ENTALK\*65  
 STRAL\*BUFF2  
 ENTAL\*LOK\*4  
 STRAL\*TFX  
 ENTBK\*1  
 ENTALK\*1  
 ADDALB\*TPAB1=1

ENTAU\*TPAS4

ADD AL 14  
 SET TYPEOUT BUFFER  
 TO CODES FOR 14

SET UP  
 ERROR DISPLAY  
 SET AL TO 525252  
 CORRECT TO AU. *GOOD IF...*  
 TEST FUNC *AFTER EXECUTION, AL = 0*  
 CHECK OK

ERROR DISPLAY  
 ERROR EXIT.  
 SET B TO 377777  
 BJUMP TO ADD  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 EXIT

TEST FUNC  
 CONTINUE TEST

ADD AL TO Y+B 15  
 SET TYPEOUT BUFFER  
 TO CODES FOR 15

SET UP  
 ERROR DISPLAY  
 SET B TO 1  
 SET AL TO 000001  
 TEST FUNC

CORRECT TO AU

03200 02 2243 1522  
 03201 61 3204 1523  
 03202 76 1742 1524  
 03203 55 3165 1525  
 03204 36 0002 1526

TF152

CMAL\*TPAS4  
 JPEQ\*LOK+3  
 RJP\*TFDIS  
 IJP\*TF15  
 ENTBK\*2

IS AL CORRECT  
 CHECK OK  
 ERROR DISPLAY  
 ERROR EXIT  
 SET B TO 2

03205 15 2241 1527  
 03206 10 2244 1530  
 03207 02 2244 1531  
 03210 63 3202 1532  
 03211 36 0003 1533  
 03212 15 2241 1534  
 03213 10 2237 1535  
 03214 02 2237 1536

ADDALB\*TPAS4-2  
 ENTAU\*TPAS5  
 CMAL\*TPAS5  
 JPNOT\*TF152  
 ENTBK\*3  
 ADDALB\*TPAS5-3  
 ENTAU\*TPAS  
 CMAL\*TPAS

TEST FUNC  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 3  
 TEST FUNC  
 CORRECT TO AU  
 IS AL CORRECT

03215 63 3202 1537  
 03216 55 3165 1540

TF16

JPNOT\*TF152  
 IJP\*TF15

ERROR JUMP  
 EXIT

1541  
 1542  
 1543  
 1544  
 1545  
 1546

TF16

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*  
 ENTALK\*61

SUBT AL MINUS Y 16  
 SET TYPEOUT BUFFER

03221 44 2222 1547  
 03222 70 0066 1550  
 03223 44 2223 1551  
 03224 12 3230 1552  
 03225 44 2037 1553  
 03226 70 0001 1554  
 03227 10 2146 1555  
 03230 16 2166 1556

STRAL\*BUFF1  
 ENTALK\*66  
 STRAL\*BUFF2  
 ENTAL\*LOK+4  
 STRAL\*TFX  
 ENTALK\*1  
 ENTAU\*TPAT1  
 SUBAL\*TPAB1

TO CODES FOR 16

SET UP  
 ERROR DISPLAY  
 SET AL TO 000001  
 CLR AU  
 TEST FUNC

03231 61 3234 1557  
 03232 76 1742 1560  
 03233 55 3217 1561  
 03234 16 2166 1562  
 03235 10 2254 1563  
 03236 02 2254 1564  
 03237 63 3232 1565  
 03240 12 2263 1566

TF162

JPALZ\*LOK+3  
 RJP\*TFDIS  
 IJP\*TF16  
 SUBAL\*TPAB1  
 ENTAU\*TCO  
 CMAL\*TCO  
 JPNOT\*TF162  
 ENTAL\*TCO4+1

CHECK OK  
 ERROR DISPLAY  
 ERROR EXIT  
 TEST FUNC  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET AL TO 200000

03241 16 2257 1567  
 03242 10 2166 1570  
 03243 02 2166 1571  
 03244 63 3232 1572  
 03245 12 2263 1573  
 03246 16 2175 1574

03247 10 2270 1575  
 03250 02 2270 1576  
 03251 63 3232 1577  
 03252 55 3217 1600

1601  
 1602  
 1603  
 1604

TF17

03253 00 0000 1605  
 03254 70 0061 1606  
 03255 44 2222 1607  
 03256 70 0067 1610  
 03257 44 2223 1611  
 03260 12 3265 1612  
 03261 44 2037 1613  
 03262 10 2146 1614

TF17

03263 70 0001 1615  
 03264 36 0011 1616  
 03265 17 2155 1617  
 03266 61 3271 1620  
 03267 76 1742 1621  
 03270 55 3253 1622  
 03271 12 2263 1623  
 03272 36 0002 1624

TF172

03273 17 2162 1625  
 03274 10 2254 1626  
 03275 02 2254 1627  
 03276 63 3267 1630  
 03277 55 3253 1631  
 1632

TF20

SUBAL\*TC01+1  
 ENTAU\*TPAB1  
 CMAL\*TPAB1  
 JPNOT\*TF162  
 ENTAL\*TC04+1  
 SUBAL\*TPAB4+1

ENTAU\*TCUT4  
 CMAL\*TCUT4  
 JPNOT\*TF162  
 IJP\*TF16

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT, CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL

0\*  
 ENTALK\*67  
 STRAL\*BUFF1  
 ENTALK\*67  
 STRAL\*BUFF2  
 ENTAL\*TF172+2  
 STRAL\*TFX  
 ENTAU\*TPAT1

ENTALK\*1  
 ENTBK\*11  
 SUBALB\*TPAB1-11  
 JPALZ\*LOK+3  
 RJP\*TFDIS  
 IJP\*TF17  
 ENTAL\*TC04+1  
 ENTBK\*2

SUBALB\*TPAB-2  
 ENTAU\*TC0  
 CMAL\*TC0  
 JPNOT\*TF172  
 IJP\*TF17  
 PROG\*SCOTT\*30APL64

TEST FUNC  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET AL TO 200000  
 TEST FUNC

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 EXIT

SUBT Y+B FROM AL 17  
 SET TYPEOUT BUFFER  
 TO CODES FOR 17

SET UP  
 ERROR DISPLAY  
 CLR AU

SET AL TO 000001  
 SET B TO 11  
 TEST FUNC  
 CHECK OK  
 ERROR DISPLAY  
 ERROR EXIT  
 SET AL TO 200000  
 SET B TO 2

TEST FUNC  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 EXIT

03300	00	0000	1633		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.
03301	70	0062	1634		REMARK*THE SUM OF ADD A IS CONTAINED IN
03302	44	2222	1635		REMARK*THE ENTIRE AU AND AL REGISTERS
03303	70	0060	1636	TF20	0*
03304	44	2223	1637		ADD A TO Y AND Y+1 20
			1640		SET TYPEOUT BUFFER
			1641		TO CODES FOR 20
			1642		
03305	12	3311	1643		SET UP
03306	44	2037	1644		ERROR DISPLAY
03307	10	2255	1645		SET AU TO 777777
03310	12	2255	1646		SET AL TO 777777
03311	20	2146	1647		A+000000000000
03312	62	3314	1650		ERROR JUMP
03313	61	3316	1651		CHECK OK
03314	76	1742	1652	TF202	ERROR DISPLAY
03315	55	3300	1653		ERROR EXIT
03316	10	2263	1654		SET AU TO 200000
03317	20	2254	1655		A+777777777776
03320	02	2255	1656		IS AL CORRECT
03321	63	3314	1657		ERROR JUMP
03322	50	4722	1660		EXCHANGE REGS
03323	02	2257	1661		IS AU CORRECT
03324	61	3327	1662		CHECK OK
03325	50	4722	1663	TF204	EXCHANGE REGS
03326	34	3314	1664		ERROR JUMP
03327	50	4722	1665		EXCHANGE REGS
03330	20	2256	1666		A+177777777777
03331	02	2255	1667		IS AL CORRECT
03332	63	3314	1670		ERROR JUMP
03333	50	4722	1671		EXCHANGE REGS
03334	02	2261	1672		IS AU CORRECT
03335	63	3325	1673		ERROR JUMP
03336	55	3300	1674		EXIT
			1675	TF21	PROG*SCOTT*30APL64
			1676		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.



1677			REMARK*THE SUM OF THE ADD A IS CONTAINED
1700			REMARK*IN THE ENTIRE AU AND AL REGISTERS
03337	00 0000	1701	TF21 0*
03340	70 0062	1702	ENTALK*62
03341	44 2222	1703	STRAL*BUFF1
03342	70 0061	1704	ENTALK*61
03343	44 2223	1705	STRAL*BUFF2
03344	12 3351	1706	ENTAL*LOK+5
03345	44 2037	1707	STRAL*TFX
03346	10 2255	1710	ENTAU*TC0+1
03347	12 2255	1711	ENTAL*TC0+1
03350	36 0011	1712	ENTBK*11
03351	21 2135	1713	ADDAB*TPAT1+11
03352	62 3354	1714	JPAUNZ*TF213
03353	61 3356	1715	JPALZ*LOK+3
03354	76 1742	1716	RJP*TF015
03355	55 3337	1717	IJP*TF21
03356	10 2263	1720	ENTAU*TC0+1
03357	36 0004	1721	ENTBK*4
03360	21 2252	1722	ADDAB*TC01+4
03361	50 5100	1723	SKPNB0*0
03362	20 2254	1724	ADDA*TC0
03363	02 2255	1725	CMAL*TC0+1
03364	63 3354	1726	JPNOT*TF213
03365	50 4722	1727	LSHA*22
03366	02 2261	1730	CMAL*TC03
03367	61 3355	1731	JPEQ*TF213+1
03370	50 4722	1732	LSHA*22
03371	34 3354	1733	JP*TF213
		1734	PROG*SCOTT*30APL64
		1735	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.
		1736	REMARK*THE REMAINDER OF THE SUBTRACT
		1737	REMARK*IS CONTAINED IN AU AND AL
03372	00 0000	1740	TF22 0*
03373	70 0062	1741	ENTALK*62
03374	44 2222	1742	STRAL*BUFF1

ADD A WITH Y+B AND Y+1+B 21  
SET TIMEOUT BUFFER  
TO CODES FOR 21

SET UP  
ERROR DISPLAY  
SET AU TO 777777

SET AL TO 777777  
SET B TO 11  
A+000000000000  
ERROR JUMP  
IS AL CORRECT  
ERROR DISPLAY  
ERROR EXIT  
SET AU TO 200000

SET B TO 4  
A+177777777777  
IS BORROW GENERATED  
CORRECT SUM  
IS AL CORRECT  
ERROR JUMP  
EXCHANGE REG  
IS AU CORRECT

YES EXIT  
EXCHANGE REGS  
ERROR JUMP

SUBT Y AND Y+1 FROM A 22  
SET TIMEOUT BUFFER  
TO CODES FOR 22

03375 70 0062 1743  
 03376 44 2223 1744  
 03377 12 3403 1745  
 03400 44 2037 1746

03401 12 2144 1747  
 03402 10 2257 1750  
 03403 22 2256 1751  
 03404 63 3406 1752  
 03405 60 3410 1753  
 03406 76 1742 1754  
 03407 55 3372 1755  
 03410 12 2144 1756

03411 10 2263 1757  
 03412 22 2256 1760  
 03413 50 4722 1761  
 03414 02 2166 1762  
 03415 63 3427 1763  
 03416 62 3427 1764  
 03417 12 2144 1765  
 03420 10 2257 1766

03421 22 2262 1767  
 03422 02 2144 1770  
 03423 63 3406 1771  
 03424 50 4722 1772  
 03425 02 2144 1773  
 03426 61 3407 1774  
 03427 50 4722 1775  
 03430 34 3406 1776

1777  
 2000  
 2801  
 2002

03431 00 0000 2003  
 03432 70 0062 2004  
 03433 44 2222 2005  
 03434 70 0063 2006

ENTALK\*62  
 STRAL\*BUFF2  
 ENTAL\*LOK+4  
 STRAL\*TFX

ENTAL\*TPAT  
 ENTAU\*TC01+1  
 SUBA\*TC01  
 JPALNZ\*TF222  
 JPAUZ\*LOK+3  
 RJP\*TF015  
 IJP\*TF22  
 ENTAL\*TPAT

ENTAU\*TC04+1  
 SUBA\*TC01  
 LSHA\*22  
 CMAL\*TPAB1  
 JPNOT\*TF224  
 JPAUNZ\*TF224  
 ENTAL\*TPAT  
 ENTAU\*TC01+1

SUBA\*TC04  
 CMAL\*TPAT  
 JPNOT\*TF222  
 LSHA\*22  
 CMAL\*TPAT  
 JPEQ\*TF222+1  
 LSHA\*22  
 JP\*TF222

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*THE REMAINDER OF THE SUBTRACT  
 REMARK\*IS CONTAINED IN AU AND AL  
 0\*  
 ENTALK\*62  
 STRAL\*BUFF1  
 ENTALK\*63

SET UP  
 ERROR DISPLAY

SET AL TO 777777  
 SET AU TO 177777  
 TEST FUNC  
 ERROR JUMP  
 CONTINUE  
 ERROR DISPLAY  
 ERROR EXIT  
 SET AL TO 777777

SET AU TO 200000  
 TEST FUNC  
 EXCHANGE REGS  
 IS AU CORRECT  
 ERROR JUMP  
 ERROR JUMP  
 SET AL TO 777777  
 SET AU TO 177777

TEST FUNC  
 IS AL CORRECT  
 ERROR JUMP  
 EXCHANGE REGS  
 IS AU CORRECT  
 YES EXIT  
 EXCHANGE REGS  
 ERROR JUMP

SUBT Y+B AND Y+1+B FROM A 23  
 SET TYPEOUT BUFFER  
 TO CODES FOR 23

03435 44 2223 2007  
 03436 12 3443 2010  
 03437 44 2037 2011  
 03440 12 2144 2012  
 03441 10 2257 2013  
 03442 36 0011 2014

STRAL\*BUFF2  
 ENTAL\*LOK+5  
 STRAL\*TFX  
 ENTAL\*TPAT  
 ENTAU\*TC01+1  
 ENTBK\*11

SET UP  
 ERROR DISPLAY  
 SET AL TO 777777  
 SET AU TO 177777  
 SET B TO 11

03443 23 2245 2015  
 03444 63 3446 2016  
 03445 60 3450 2017  
 03446 76 1742 2020  
 03447 55 3431 2021  
 03450 12 2146 2022  
 03451 10 2263 2023  
 03452 36 0032 2024

TF232

SUBAB\*TC01-11  
 JPALNZ\*TF232  
 JPAUZ\*LOK+3  
 RJP\*TFDIS  
 IJP\*TF23  
 ENTAL\*TPAT1  
 ENTAU\*TC04+1  
 ENTBK\*32

TEST FUNC  
 ERROR JUMP  
 CONTINUE  
 ERROR DISPLAY  
 ERROR EXIT  
 CLR AL  
 SET AU TO 200000  
 SET B TO 32

03453 23 2224 2025  
 03454 02 2166 2026  
 03455 63 3446 2027  
 03456 62 3446 2030  
 03457 50 5100 2031  
 03460 34 3446 2032  
 03461 55 3431 2033  
 2034

TF24

SUBAB\*TC01-32  
 CMAL\*TPAB1  
 JPNOT\*TF232  
 JPAUNZ\*TF232  
 SKPNB0\*0  
 JP\*TF232  
 IJP\*TF23  
 PROG\*SCOTT\*30APL64

TEST FUNC  
 IS AL CORRECT  
 ERROR JUMP  
 ERROR JUMP  
 CHECK NO BORROW-  
 ERROR JUMP  
 EXIT

2035  
 2036  
 2037

TF24

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*THE PRODUCT OF THE MULTIPLY IS  
 REMARK\*CONTAINED IN AU AND AL  
 0\*

MULTIPLY AL BY Y 24  
 SET TYPEOUT BUFFER  
 TO CODES FOR 24

03462 00 0000 2040  
 03463 70 0062 2041  
 03464 44 2222 2042  
 03465 70 0064 2043  
 03466 44 2223 2044

ENTALK\*62  
 STRAL\*BUFF1  
 ENTALK\*64  
 STRAL\*BUFF2

03467 12 3472 2045  
 03470 44 2037 2046  
 03471 70 0000 2047  
 03472 24 2261 2050  
 03473 61 3476 2051  
 03474 76 1742 2052  
 03475 55 3462 2053

TF242

ENTAL\*LOK+3  
 STRAL\*TFX  
 ENTALK\*0  
 MULAL\*TC03  
 JPALZ\*LOK+3  
 RJP\*TFDIS  
 IJP\*TF24

SET UP  
 ERROR DISPLAY  
 CLR AL  
 0 X 377777  
 IS AL CORRECT  
 ERROR DISPLAY  
 ERROR EXIT

03476 70 0001 2054  
 03477 24 2261 2055  
 03500 02 2261 2056  
 03501 63 3474 2057  
 03502 62 3474 2060  
 03503 24 2261 2061  
 03504 02 2166 2062

03505 63 3474 2063  
 03506 50 4722 2064  
 03507 02 2257 2065  
 03510 61 3513 2066  
 03511 50 4722 2067  
 03512 34 3474 2070  
 03513 12 2152 2071  
 03514 24 2271 2072

03515 02 2272 2073  
 03516 63 3474 2074  
 03517 50 4722 2075  
 03520 02 2273 2076  
 03521 63 3511 2077  
 03522 55 3462 2100  
 2101  
 2102

2103  
 2104  
 03523 00 0000 2105  
 03524 70 0062 2106  
 03525 44 2222 2107  
 03526 70 0065 2110  
 03527 44 2223 2111  
 03530 12 3534 2112

03531 44 2037 2113  
 03532 70 3777 2114  
 03533 36 0011 2115  
 03534 25 2251 2116  
 03535 62 3537 2117

TF244

TF25

TF25

ENTALK\*1  
 MULAL\*TC03  
 CMAL\*TC03  
 JPNOT\*TF242  
 JPAUNZ\*TF242  
 MULAL\*TC03  
 CMAL\*TPAB1

JPNOT\*TF242  
 LSHA\*22  
 CMAL\*TC01+1  
 JPEQ\*LOK+3  
 LSHA\*22  
 JP\*TF242  
 ENTAL\*TPAT3  
 MULAL\*TCUT5

CMAL\*TCUT6  
 JPNOT\*TF242  
 LSHA\*22  
 CMAL\*TCUT7  
 JPNOT\*TF244  
 IJP\*TF24

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

REMARK\*THE PRODUCT OF THE MULTIPLY IS  
 REMARK\*CONTAINED IN AU AND AL

0\*  
 ENTALK\*62  
 STRAL\*BUFF1  
 ENTALK\*65  
 STRAL\*BUFF2  
 ENTAL\*LOK+4

STRAL\*TFX  
 ENTALK\*3777  
 ENTBK\*11  
 MULALB\*TC04-11  
 JPAUNZ\*TF252

SET AL TO 000001  
 1 X 377777  
 IS AL CORRECT  
 ERROR JUMP  
 ERROR JUMP  
 377777 X 377777  
 IS AL CORRECT

ERROR JUMP  
 EXCHANGE REGS  
 IS AU CORRECT  
 YES CONTINUE  
 EXCHANGE REGS  
 ERROR JUMP  
 SET AL TO 525252  
 525252 X 343434

IS AL CORRECT  
 ERROR JUMP  
 EXCHANGE REGS  
 IS AU CORRECT  
 ERROR JUMP  
 EXIT

MULTIPLY AL BY Y+B 25  
 SET TYPEOUT BUFFER  
 TO CODES FOR 25

SET UP

ERROR DISPLAY  
 SET AL TO 003777  
 SET B TO 11  
 003777 X 0  
 ERROR JUMP

03536	61 3541	2120	JPALZ*LOK+3	IS AL CORRECT
03537	76 1742	2121	RJP*TFDIS	ERROR DISPLAY
03540	55 3523	2122	IJP*TF25	ERROR EXIT
03541	12 2177	2123	ENTAL*TPAB5+1	SET AL TO 677777
03542	36 0012	2124	ENTBK*12	SET B TO 12
03543	25 2165	2125	MULALB*TPAB5-11	677777 X 677777
03544	63 3537	2126	JPALNZ*TF252	ERROR JUMP
03545	50 4722	2127	LSHA*22	EXCHANGE REGS
03546	02 2260	2130	CMAL*TC02	IS AU CORRECT
03547	61 3552	2131	JPE0*LOK+3	YES CONTINUE
03550	50 4722	2132	LSHA*22	EXCHANGE REGS
03551	34 3537	2133	JP*TF252	ERROR JUMP
03552	12 2177	2134	ENTAL*TPAB5+1	SET AL TO 677777
03553	36 0002	2135	ENTBK*2	SET B TO 2
03554	25 2175	2136	MULALB*TPAB5-1	677777 X 677777
03555	63 3537	2137	JPALNZ*TF252	ERROR JUMP
03556	50 4722	2140	LSHA*22	EXCHANGE REGS
03557	02 2260	2141	CMAL*TC02	IS AL CORRECT
03560	63 3550	2142	JPN0T*TF254	ERROR JUMP
03561	55 3523	2143	IJP*TF25	EXIT
		2144	PROG*SCOTT*30APL64	
		2145	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
		2146	REMARK*DIVIDE REMAINDER IN AU	
		2147	REMARK*DIVIDE QUOTIENT IN AL	
03562	00 0000	2150	0*	DIVIDE A BY Y 26
03563	70 0062	2151	ENTALK*62	
03564	44 2222	2152	STRAL*BUFF1	SET TYPEOUT BUFFER
03565	70 0066	2153	ENTALK*66	TO CODES FOR 26
03566	44 2223	2154	STRAL*BUFF2	
03567	12 3573	2155	ENTAL*LOK+4	SET UP
03570	44 2037	2156	STRAL*TFX	ERROR DISPLAY
03571	10 2174	2157	ENTAU*TPAB4	SET AU TO 107777
03572	12 2144	2160	ENTAL*TPAT	SET AL TO 777777
03573	26 2165	2161	DIVA*TPAB+1	DIV A BY 300000
03574	02 2175	2162	CMAL*TPAB4+1	IS AL CORRECT
03575	63 3600	2163	JPN0T*TF263	ERROR JUMP

03576 34 3602 2164  
 03577 50 4722 2165  
 03600 76 1742 2166

TF263

JP\*LOK+4  
 LSHA\*22  
 RJP\*TFDIS

CONTINUE  
 EXCHANGE REGS  
 ERROR DISPLAY

03601 55 3562 2167  
 03602 50 4722 2170  
 03603 02 2175 2171  
 03604 63 3577 2172  
 03605 10 2146 2173  
 03606 26 2264 2174  
 03607 02 2254 2175  
 03610 63 3600 2176

IJP\*TF26  
 LSHA\*22  
 CMAL\*TPAB4+1  
 JPNOT\*TF263+1  
 ENTAU\*TPAT1  
 DIVA\*TCUT  
 CMAL\*TCO  
 JPNOT\*TF263

ERROR EXIT  
 EXCHANGE REGS  
 IS AU CORRECT  
 ERROR JUMP  
 CLR AU  
 DIV A BY 500000  
 IS AL CORRECT  
 ERROR JUMP

03611 34 3612 2177  
 03612 62 3600 2200  
 03613 12 2265 2201  
 03614 10 2146 2202  
 03615 26 2263 2203  
 03616 02 2243 2204  
 03617 63 3600 2205  
 03620 50 4722 2206

JP\*LOK+1  
 JPAUNZ\*TF263  
 ENTAL\*TCUT1  
 ENTAU\*TPAT1  
 DIVA\*TCO4+1  
 CMAL\*TPAS4  
 JPNOT\*TF263  
 LSHA\*22

ERROR JUMP  
 SET AL TO 477777  
 CLEAR AU  
 DIV A BY 200000  
 IS AL CORRECT  
 ERROR JUMP  
 EXCHANGE REGS

03621 02 2267 2207  
 03622 63 3577 2210  
 03623 10 2266 2211  
 03624 12 2146 2212  
 03625 26 2265 2213  
 03626 02 2175 2214  
 03627 63 3600 2215  
 03630 50 4722 2216

CMAL\*TCUT3  
 JPNOT\*TF263+1  
 ENTAU\*TCUT2  
 ENTAL\*TPAT1  
 DIVA\*TCUT1  
 CMAL\*TPAB4+1  
 JPNOT\*TF263  
 LSHA\*22

IS AU CORRECT  
 ERROR JUMP  
 SET AU TO 670000  
 CLR AL  
 DIV A BY 477777  
 IS AL CORRECT  
 ERROR JUMP  
 EXCHANGE REGS

03631 02 2264 2217  
 03632 63 3577 2220  
 03633 55 3562 2221

TF27

CMAL\*TCUT  
 JPNOT\*TF263+1  
 IJP\*TF26

IS AU CORRECT  
 ERROR JUMP

PROG\*SCOTT\*30APL64

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

REMARK\*DIVIDE REMAINDER IN AU

REMARK\*DIVIDE QUOTIENT IN AL

0\*

DIVIDE A BY Y+B 27

03634 00 0000 2226

TF27

ENTALK\*62

SET TYPEOUT BUFFER

03635 70 0062 2227

03636 44 2222 2230  
 03637 70 0067 2231  
 03640 44 2223 2232  
 03641 12 3646 2233  
 03642 44 2037 2234

STRAL\*BUFF1  
 ENTALK\*67  
 STRAL\*BUFF2  
 ENTAL\*LOK\*5  
 STRAL\*TFX

TO CODES FOR 27

SET UP  
 ERROR DISPLAY

03643 36 0001 2235  
 03644 10 2146 2236  
 03645 12 2175 2237  
 03646 27 2165 2240  
 03647 02 2175 2241  
 03650 63 3652 2242  
 03651 60 3654 2243  
 03652 76 1742 2244

ENTBK\*1  
 ENTAU\*TPAT1  
 ENTAL\*TPAB4\*1  
 DIVAB\*TPAB1\*1  
 CMAL\*TPAB4\*1  
 JPNOT\*TF272  
 JPAUZ\*LOK\*3  
 RJP\*TFDIS

SET B TO 1  
 CLR AU  
 SET AL TO 277777  
 DIV A BY 1  
 IS AL CORRECT  
 ERROR JUMP  
 CONTINUE  
 ERROR DISPLAY

03653 55 3634 2245  
 03654 36 0002 2246  
 03655 27 2262 2247  
 03656 02 2254 2250  
 03657 63 3652 2251  
 03660 62 3652 2252  
 03661 55 3634 2253  
 2254

IJP\*TF27  
 ENTBK\*2  
 DIVAB\*TCUT-2  
 CMAL\*TCO  
 JPNOT\*TF272  
 JPAUNZ\*TF272  
 IJP\*TF27  
 PROG\*CASEY\*30APL64

ERROR EXIT  
 SET B TO 2  
 DIV A BY 500000  
 IS AL CORRECT  
 ERROR JUMP  
 ERROR JUMP  
 EXIT

TF30

03662 00 0000 2255  
 03663 70 0063 2256  
 03664 44 2222 2257  
 03665 70 0060 2260  
 03666 44 2223 2261  
 03667 12 3671 2262  
 2263  
 2264

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*NO ERROR DISPLAY IN AU OR AL  
 0\*  
 ENTALK\*63  
 STRAL\*BUFF1  
 ENTALK\*60  
 STRAL\*BUFF2  
 ENTAL\*LOK\*2

SET UP

03670 44 2037 2265  
 03671 30 3706 2266  
 03672 34 3676 2267  
 03673 30 3706 2270  
 03674 34 3676 2271  
 03675 30 3706 2272  
 03676 76 1742 2273  
 03677 55 3662 2274

STRAL\*TFX  
 IRJP\*TF301  
 JP\*TR30  
 IRJP\*TF301  
 JP\*TR30  
 IRJP\*TF301  
 RJP\*TFDIS  
 IJP\*TF30

ERROR DISPLAY  
 TEST JUMP  
 ERROR JUMP  
 TEST JUMP  
 ERROR JUMP  
 TEST JUMP  
 ERROR DISPLAY  
 EXIT

TR30

03700	00	0000	2275	TF302	0*0	ENTRANCE SUB
03701	12	3700	2276		ENTAL*TF302	RETURN ADDRESS
03702	71	0001	2277		ADDALK*0001	PLUS 1
03703	44	3700	2300		STRAL*TF302	RESTORE
03704	12	2146	2301		ENTAL*TPAT1	CLR AL
03705	55	3700	2302		IJP*TF302	EXIT
03706	00	3700	2303	TF301	0*TF302	ADDRESS
			2304	TF31	PROG*CASEY*30APL64	
			2305		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			2306		REMARK*NO DISPLAY IN AU OR AL	
03707	00	0000	2307	TF31	0*	INDIRECT RJP + B
03710	70	0063	2310		ENTALK*63	SET TYPEOUT BUFFER
03711	44	2222	2311		STRAL*BUFF1	TO CODES FOR 31
03712	70	0061	2312		ENTALK*61	
03713	44	2223	2313		STRAL*BUFF2	
03714	36	0001	2314		ENTBK*1	SET B TO 1
03715	31	3717	2315		IRJPB*TF311+1	TEST JUMP
03716	34	3725	2316		JP*TF313	CONTINUE
03717	34	3746	2317		JP*TR31	ERROR JUMP
03720	00	3722	2320	TF311	0*TF312+1	ADDRESS
03721	34	3746	2321	TF312	JP*TR31	ERROR JUMP
03722	00	0000	2322		0*0	ENT
03723	55	3722	2323		IJP*TF312+1	EXIT SUB
03724	34	3746	2324		JP*TR31	ERROR JUMP
03725	36	0002	2325	TF313	ENTBK*0002	SET B TO 2
03726	31	3727	2326		IRJPB*TF314+2	TEST JUMP
03727	34	3737	2327		JP*TF316	CONTINUE
03730	34	3746	2330		JP*TR31	ERROR JUMP
03731	00	3734	2331	TF314	0*TF315+2	ADDRESS
03732	34	3746	2332	TF315	JP*TR31	ERROR JUMP
03733	34	3746	2333		JP*TR31	ERROR JUMP
03734	00	0000	2334		0*0	ENT
03735	55	3734	2335		IJP*TF315+2	EXIT SUB
03736	34	3746	2336		JP*TR31	ERROR JUMP
03737	32	2254	2337	TF316	ENTB*TC0	SET B TO MINUS ONE
03740	31	3744	2340		IRJPB*TF317+1	TEST JUMP



03741 55 3707 2341  
 03742 34 3746 2342  
 03743 00 3744 2343  
 03744 00 0000 2344  
 03745 55 3744 2345  
 03746 12 3711 2346  
 03747 44 2037 2347  
 03750 12 2146 2350

03751 76 1742 2351  
 03752 55 3707 2352

03753 00 0000 2353  
 03754 70 0063 2354

03755 44 2222 2355  
 03756 70 0062 2356  
 03757 44 2223 2357  
 03760 12 3762 2360  
 03761 44 2037 2361  
 03762 32 2144 2362  
 03763 42 2275 2363  
 03764 12 2275 2364

03765 10 2144 2365  
 03766 02 2145 2366  
 03767 63 4042 2367  
 03770 32 2146 2370  
 03771 42 2275 2371  
 03772 12 2275 2372  
 03773 10 2146 2373  
 03774 02 2147 2374

03775 63 4042 2401  
 03776 32 2150 2402  
 03777 42 2275 2403  
 04000 12 2275 2404

TF317

TF310  
TR31

TF32

TF32

IJP\*TF31  
 JP\*TR31  
 0\*TF310-1  
 0\*0  
 IJP\*LOK-1  
 ENTAL\*TF31+2  
 STRAL\*TFX  
 ENTAL\*TPAT1

RJP\*TFDIS  
 IJP\*TF31  
 PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY: FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*  
 ENTALK\*63

STRAL\*BUFF1  
 ENTALK\*62  
 STRAL\*BUFF2  
 ENTAL\*LOK+2  
 STRAL\*TFX  
 ENTB\*TPAT  
 STRB\*SAVEB  
 ENTAL\*SAVEB

ENTAU\*TPAT  
 CMAL\*TPAT+1  
 JPNOT\*TF320  
 ENTB\*TPAT1  
 STRB\*SAVEB  
 ENTAL\*SAVEB  
 ENTAU\*TPAT1  
 CMAL\*TPAT1+1

JPNOT\*TF320  
 ENTB\*TPAT2  
 STRB\*SAVEB  
 ENTAL\*SAVEB

EXIT  
 ERROR JUMP  
 ADDRESS  
 ENT  
 EXIT SUB  
 SET UP  
 ERROR DISPLAY  
 CLR AL

ERROR DISPLAY  
 EXIT

ENT B 32  
 SET TYPEOUT BUFFER

TO CODES FOR 32

SET UP  
 ERROR DISPLAY  
 SET B TO ALL ONES  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 CLR B  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT

ERROR JUMP  
 SET B TO 252525  
 SET AL EQUAL B

04001 10 2150 2405  
04002 02 2151 2406

ENTAU\*TPAT2  
CMAL\*TPAT2+1

CORRECT TO AU  
IS AL CORRECT

04003 63 4042 2407  
04004 32 2152 2410  
04005 42 2275 2411  
04006 12 2275 2412  
04007 10 2152 2413  
04010 02 2153 2414  
04011 63 4042 2415  
04012 32 2154 2416

JPNOT\*TF320  
ENTB\*TPAT3  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAT3  
CMAL\*TPAT3+1  
JPNOT\*TF320  
ENTB\*TPAT4

ERROR JUMP  
SET B TO 525252  
SET AL EQUAL B

CORRECT TO AU  
IS AL CORRECT  
ERROR JUMP  
SET B TO 770000

04013 42 2275 2417  
04014 12 2275 2420  
04015 10 2154 2421  
04016 02 2155 2422  
04017 63 4042 2423  
04020 32 2156 2424  
04021 42 2275 2425  
04022 12 2275 2426

STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAT4  
CMAL\*TPAT4+1  
JPNOT\*TF320  
ENTB\*TPAT5  
STRB\*SAVEB  
ENTAL\*SAVEB

SET AL EQUAL B

CORRECT TO AU  
IS AL CORRECT  
ERROR JUMP  
SET B TO 007777  
SET AL EQUAL B

04023 10 2156 2427  
04024 02 2157 2430  
04025 63 4042 2431  
04026 32 2160 2432  
04027 42 2275 2433  
04030 12 2275 2434  
04031 10 2160 2435  
04032 02 2161 2436

ENTAU\*TPAT5  
CMAL\*TPAT5+1  
JPNOT\*TF320  
ENTB\*TPAT6  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAT6  
CMAL\*TPAT6+1

CORRECT TO AU  
IS AL CORRECT  
ERROR JUMP  
SET B TO 707070  
SET AL EQUAL B

CORRECT TO AU  
IS AL CORRECT

04033 63 4042 2437  
04034 32 2162 2440  
04035 42 2275 2441  
04036 12 2275 2442  
04037 10 2162 2443  
04040 02 2163 2444  
04041 61 4043 2445  
04042 76 1742 2446

JPNOT\*TF320  
ENTB\*TPAT7  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAT7  
CMAL\*TPAT7+1  
JPEQ\*TF320+1  
RJP\*TFDIS

ERROR JUMP  
SET B TO 070707  
SET AL EQUAL B

CORRECT TO AU  
IS AL CORRECT  
YES EXIT  
ERROR DISPLAY

04043 55 3753 2447  
2450

TF320

TF33

IJP\*TF32  
PROG\*CASEY\*30APL64

EXIT

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04044	00	0000	2451	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			2452	REMARK*CORRECT PATTERN IN AU	
			2453	REMARK*INCORRECT PATTERN IN AL	
			2454	0*	ENTER B +B 33
			TF33		
04045	70	0063	2455	ENTALK*63	SET TYPEOUT BUFFER
04046	44	2222	2456	STRAL*BUFF1	TO CODES FOR 33
04047	70	0063	2457	ENTALK*63	
04050	44	2223	2460	STRAL*BUFF2	
04051	12	4054	2461	ENTAL*LOK*3	SET UP
04052	44	2037	2462	STRAL*TFX	ERROR DISPLAY
04053	32	2166	2463	ENTB*TPAB1	PLUS ONE TO B
04054	33	2144	2464	ENTBB*TPAT	SET B TO ALL ONES
04055	42	2275	2465	STRB*SAVEB	SET AL EQUAL B
04056	12	2275	2466	ENTAL*SAVEB	
04057	10	2144	2467	ENTAU*TPAT	CORRECT TO AU
04060	02	2145	2470	CMAL*TPAT+1	IS AL CORRECT
04061	63	4134	2471	JPNOT*TF330	ERROR JUMP
04062	32	2243	2472	ENTB*TPAS4	PLUS 2 TO B
04063	33	2146	2473	ENTBB*TPAT1	SET B TO 252525
04064	42	2275	2474	STRB*SAVEB	SET AL EQUAL B
04065	12	2275	2475	ENTAL*SAVEB	
04066	10	2150	2476	ENTAU*TPAT2	CORRECT TO AU
04067	02	2150	2477	CMAL*TPAT2	IS AL CORRECT
04070	63	4134	2500	JPNOT*TF330	ERROR JUMP
04071	32	2167	2501	ENTB*TPAB1+1	MINUS ONE TO B
04072	33	2154	2502	ENTBB*TPAT4	SET B TO 525252
04073	42	2275	2503	STRB*SAVEB	SET AL EQUAL B
04074	12	2275	2504	ENTAL*SAVEB	
04075	10	2152	2505	ENTAU*TPAT3	CORRECT TO AU
04076	02	2152	2506	CMAL*TPAT3	IS AL CORRECT
04077	63	4134	2507	JPNOT*TF330	ERROR JUMP
04100	32	2244	2510	ENTB*TPAS5	PLUS 4 TO B
04101	33	2150	2511	ENTBB*TPAT2	SET B EQUAL 770000
04102	42	2275	2512	STRB*SAVEB	SET AL EQUAL B
04103	12	2275	2513	ENTAL*SAVEB	
04104	10	2154	2514	ENTAU*TPAT4	CORRECT TO AU

04105 02 2154 2515  
 04106 63 4134 2516  
 04107 32 2146 2517  
 04110 33 2156 2520  
 04111 42 2275 2521  
 04112 12 2275 2522

CMAL\*TPAT4  
 JPNOT\*TF330  
 ENTB\*TPAT1  
 ENTBB\*TPAT5  
 STRB\*SAVEB  
 ENTAL\*SAVEB

IS AL CORRECT  
 ERROR JUMP  
 CLR B  
 SET B TO 007777  
 SET AL EQUAL B

04113 10 2157 2523  
 04114 02 2157 2524  
 04115 63 4134 2525  
 04116 32 2246 2526  
 04117 33 2162 2527  
 04120 42 2275 2530  
 04121 12 2275 2531  
 04122 10 2160 2532

ENTAU\*TPAT5+1  
 CMAL\*TPAT5+1  
 JPNOT\*TF330  
 ENTB\*TPAT7  
 ENTBB\*TPAT7  
 STRB\*SAVEB  
 ENTAL\*SAVEB  
 ENTAU\*TPAT6

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 MINUS 2 TO B  
 SET B TO 707070  
 SET AL EQUAL B

04123 02 2160 2533  
 04124 63 4134 2534  
 04125 32 2245 2535  
 04126 33 2153 2536  
 04127 42 2275 2537  
 04130 12 2275 2540  
 04131 10 2162 2541  
 04132 02 2162 2542

CMAL\*TPAT6  
 JPNOT\*TF330  
 ENTB\*TPAT6  
 ENTBB\*TPAT3+1  
 STRB\*SAVEB  
 ENTAL\*SAVEB  
 ENTAU\*TPAT7  
 CMAL\*TPAT7

IS AL CORRECT  
 ERROR JUMP  
 PLUS 7 TO B  
 SET B TO 070707  
 SET AL EQUAL B

04133 61 4135 2543  
 04134 76 1742 2544  
 04135 55 4044 2545

TF330

JPEQ\*TF330+1  
 RJP\*TFDIS  
 IJP\*TF33

YES EXIT  
 ERROR DISPLAY  
 EXIT

04136 00 0000 2551  
 04137 70 0063 2552

TF34

PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*NO DISPLAY AU OR AL  
 0\*  
 ENTALK\*63

DIRECT JUMP 34  
 SET TYPEOUT BUFFER

04140 44 2222 2553  
 04141 70 0064 2554  
 04142 44 2223 2555  
 04143 34 4145 2556  
 04144 55 4165 2557  
 04145 34 4147 2560  
 04146 55 4165 2561

STRAL\*BUFF1  
 ENTALK\*64  
 STRAL\*BUFF2  
 JP\*LOK+2  
 IJP\*TR34+5  
 JP\*LOK+2  
 IJP\*TR34+5

TO CODES FOR 34

TEST JUMP  
 ERROR JUMP  
 TEST JUMP  
 ERROR JUMP

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REVISION

13

04147 34 4151 2562  
 04150 55 4165 2563  
 04151 34 4153 2564  
 04152 55 4165 2565  
 04153 34 4155 2566  
 04154 55 4165 2567  
 04155 34 4164 2570

04156 55 4165 2571  
 04157 10 2146 2572  
 04160 12 4137 2573  
 04161 44 2037 2574  
 04162 12 2146 2575  
 04163 76 1742 2576  
 04164 55 4136 2577  
 04165 00 4157 2600

04166 00 0000 2601  
 04167 70 0063 2602  
 04170 44 2222 2603  
 04171 70 0065 2604  
 04172 44 2223 2605  
 04173 12 4177 2606  
 04174 44 2037 2607  
 04175 12 2146 2610  
 04176 36 0003 2611  
 04177 35 4176 2612  
 04200 34 4211 2613  
 04201 37 0001 2614  
 04202 35 4200 2615

04203 34 4211 2621  
 04204 37 7775 2622  
 04205 35 4205 2623  
 04206 34 4211 2624  
 04207 37 0003 2625

JP\*LOK+2  
 IJP\*TR34+5  
 JP\*LOK+2  
 IJP\*TR34+5  
 JP\*LOK+2  
 IJP\*TR34+5  
 JP\*TR34+4

IJP\*TR34+5  
 ENTAU\*TPAT1  
 ENTAL\*TF34+1  
 STRAL\*TFX  
 ENTAL\*TPAT1  
 RJP\*TFDIS  
 IJP\*TF34  
 0\*TR34-1

TR34

TF35

TF35

PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*NO DISPLAY AU OR AL  
 0\*  
 ENTALK\*63  
 STRAL\*BUFF1  
 ENTALK\*65  
 STRAL\*BUFF2

ENTAL\*LOK+4  
 STRAL\*TFX  
 ENTAL\*TPAT1  
 ENTBK\*0003  
 JPB\*LOK-1  
 JP\*TR35  
 ENTBK\*1  
 JPB\*LOK-2

JP\*TR35  
 ENTBK\*7775  
 JPB\*LOK  
 JP\*TR35  
 ENTBK\*3

TEST JUMP  
 ERROR JUMP  
 TEST JUMP  
 ERROR JUMP  
 TEST JUMP  
 ERROR JUMP  
 TEST JUMP

ERROR JUMP  
 CLR AU  
 SET UP  
 ERROR DISPLAY  
 CLR AL  
 ERROR DISPLAY  
 EXIT  
 ADDRESS

JUMP PLUS B  
 SET TIMEOUT BUFFER  
 TO CODES FOR 35

SET UP  
 ERROR DISPLAY  
 CLR AL  
 SET B TO 3  
 TEST JUMP +3  
 ERROR JUMP  
 B + 1  
 TEST JUMP + 4

ERROR JUMP  
 B - 2  
 TEST JUMP + 2  
 ERROR JUMP  
 B + 3

04210	35	4205	2626	JPB*LOK-3	TEST JUMP + 5
04211	76	1742	2627	TR35	RJP*TFDIS
04212	55	4166	2630		ERROR DISPLAY
			2631	TF36	EXIT
			2632		PROG*CASEY*30APL64
			2633		REMARK*ERROR DISPLAY: FUNCT. CODE IN C REG.
			2634		REMARK*CORRECT PATTERN IN AU
04213	00	0000	2635	TF36	REMARK*INCORRECT PATTERN IN AL
04214	70	0063	2636		0*
					ENTER B WITH CONSTANT
				ENTALK*63	SET TIMEOUT BUFFER
04215	44	2222	2637		TO CODES FOR 36
04216	70	0066	2640	STRAL*BUFF1	
04217	44	2223	2641	ENTALK*66	
04220	12	4222	2642	STRAL*BUFF2	SET UP
04221	44	2037	2643	ENTAL*LOK+2	ERROR DISPLAY
04222	36	0000	2644	STRAL*TFX	CLR B
04223	42	2275	2645	ENTBK*0	SET AL EQUAL B
04224	12	2275	2646	STRB*SAVEB	
				ENTAL*SAVEB	
04225	10	2146	2647	ENTAU*TPAT1	CORRECT TO AU
04226	63	4301	2650	JPALNZ*TF360	ERROR JUMP
04227	36	7777	2651	ENTBK*7777	SET B TO 777777
04230	42	2275	2652	STRB*SAVEB	SET AL EQUAL B.
04231	12	2275	2653	ENTAL*SAVEB	
04232	10	2144	2654	ENTAU*TPAT	CORRECT TO AU
04233	02	2144	2655	CMAL*TPAT	IS AL CORRECT
04234	63	4301	2656	JPNOT*TF360	ERROR JUMP
04235	36	0001	2657	ENTBK*0001	SET B TO 000001
04236	42	2275	2660	STRB*SAVEB	SET AL EQUAL B
04237	12	2275	2661	ENTAL*SAVEB	
04240	10	2166	2662	ENTAU*TPAB1	CORRECT TO AU
04241	02	2166	2663	CMAL*TPAB1	IS AL CORRECT
04242	63	4301	2664	JPNOT*TF360	ERROR JUMP
04243	36	0505	2665	ENTBK*0505	SET B TO 000505
04244	42	2275	2666	STRB*SAVEB	SET AL EQUAL B.
04245	12	2275	2667	ENTAL*SAVEB	
04246	10	2171	2670	ENTAU*TPAB2+1	CORRECT TO AU
04247	02	2171	2671	CMAL*TPAB2+1	IS AL CORRECT

04250 63 4301 2672  
 04251 36 7070 2673  
 04252 42 2275 2674

04253 12 2275 2675  
 04254 10 2235 2676  
 04255 02 2235 2677  
 04256 63 4301 2700  
 04257 36 2525 2701  
 04260 42 2275 2702  
 04261 12 2275 2703  
 04262 10 2234 2704

04263 02 2234 2705  
 04264 63 4301 2706  
 04265 36 2020 2707  
 04266 42 2275 2710  
 04267 12 2275 2711  
 04270 10 2226 2712  
 04271 02 2226 2713  
 04272 63 4301 2714

04273 36 5252 2715  
 04274 42 2275 2716  
 04275 12 2275 2717  
 04276 10 2233 2720  
 04277 02 2233 2721  
 04300 61 4302 2722  
 04301 76 1742 2723  
 04302 55 4213 2724

2725

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2735

JPNOT\*TF360  
 ENTBK\*7070  
 STRB\*SAVEB

ENTAL\*SAVEB  
 ENTAU\*TPAK7  
 CMAL\*TPAK7  
 JPNOT\*TF360  
 ENTBK\*2525  
 STRB\*SAVEB  
 ENTAU\*TPAK6

CMAL\*TPAK6  
 JPNOT\*TF360  
 ENTBK\*2020  
 STRB\*SAVEB  
 ENTAU\*TPAK  
 CMAL\*TPAK  
 JPNOT\*TF360

ENTBK\*5252  
 STRB\*SAVEB  
 ENTAU\*TPAK5  
 CMAL\*TPAK5  
 JREQ\*TF360+1  
 RJP\*TFDIS  
 IJP\*TF36

TF360

TF37

TF37

PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*  
 ENTALK\*63  
 STRAL\*BUFF1  
 ENTALK\*67

STRAL\*BUFF2

ERROR JUMP  
 SET B TO 777070  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 002525  
 SET AL EQUAL B

CORRECT TO AU

IS AL CORRECT  
 ERROR JUMP  
 SET B TO 002020  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP

SET B TO 775252  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 YES EXIT  
 ERROR DISPLAY  
 EXIT

ENTER B WITH CONSTANT + B  
 SET TYPEOUT BUFFER  
 TO CODES FOR 37

04310 12 4313 2736  
 04311 44 2037 2737  
 04312 36 0017 2740  
 04313 37 0000 2741  
 04314 42 2275 2742

04315 12 2275 2743  
 04316 10 2240 2744  
 04317 02 2240 2745  
 04320 63 4373 2746  
 04321 36 0014 2747  
 04322 37 0001 2750  
 04323 42 2275 2751  
 04324 12 2275 2752

04325 10 2241 2753  
 04326 02 2241 2754  
 04327 63 4373 2755  
 04330 36 0013 2756  
 04331 37 7776 2757  
 04332 42 2275 2760  
 04333 12 2275 2761  
 04334 10 2242 2762

04335 02 2242 2763  
 04336 63 4373 2764  
 04337 36 0000 2765  
 04340 37 0002 2766  
 04341 42 2275 2767  
 04342 12 2275 2770  
 04343 10 2243 2771  
 04344 02 2243 2772

04345 63 4373 2773  
 04346 36 0703 2774  
 04347 37 0004 2775  
 04350 42 2275 2776  
 04351 12 2275 2777  
 04352 10 2236 3000  
 04353 02 2236 3001  
 04354 63 4373 3002

ENTAL\*LOK\*3  
 STRAL\*TFX  
 ENTBK\*0017  
 ENTBK\*0  
 STRB\*SAVEB

ENTAL\*SAVEB  
 ENTAU\*TPAS1  
 CMAL\*TPAS1  
 JPNOT\*TF370  
 ENTBK\*0014  
 ENTBK\*0001  
 STRB\*SAVEB  
 ENTAU\*SAVEB

ENTAU\*TPAS2  
 CMAL\*TPAS2  
 JPNOT\*TF370  
 ENTBK\*0013  
 ENTBK\*7776  
 STRB\*SAVEB  
 ENTAU\*SAVEB  
 ENTAU\*TPAS3

CMAL\*TPAS3  
 JPNOT\*TF370  
 ENTBK\*0  
 ENTBK\*0002  
 STRB\*SAVEB  
 ENTAU\*SAVEB  
 ENTAU\*TPAS4  
 CMAL\*TPAS4

JPNOT\*TF370  
 ENTBK\*0703  
 ENTBK\*0004  
 STRB\*SAVEB  
 ENTAU\*SAVEB  
 ENTAU\*TPAK7+1  
 CMAL\*TPAK7+1  
 JPNOT\*TF370

SET UP  
 ERROR DISPLAY  
 SET B TO 000017  
 B PLUS ZERO  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 000014  
 B PLUS 1  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 000013  
 B MINUS 1  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 CLR B  
 B PLUS 2  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT

ERROR JUMP  
 SET B TO 00703  
 B PLUS 4  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP



04355 36 7770 3003  
 04356 37 0007 3004  
 04357 42 2275 3005  
 04360 12 2275 3006  
 04361 10 2146 3007  
 04362 02 2146 3010

04363 63 4373 3011  
 04364 36 2527 3012  
 04365 37 7775 3013  
 04366 42 2275 3014  
 04367 12 2275 3015  
 04370 10 2234 3016  
 04371 02 2234 3017  
 04372 61 4374 3020

04373 76 1742 3021  
 04374 55 4303 3022  
 04375 50 5000 3023

04376 00 0000 3030

04377 70 0064 3031  
 04400 44 2222 3032  
 04401 70 0060 3033  
 04402 44 2223 3034  
 04403 12 4431 3035  
 04404 44 2037 3036  
 04405 10 2146 3037  
 04406 12 2144 3040

04407 76 4427 3041  
 04410 12 2146 3042  
 04411 76 4427 3043  
 04412 12 2150 3044  
 04413 76 4427 3045  
 04414 12 2152 3046

ENTBK\*7770  
 ENTBK\*0007  
 STRB\*SAVEB  
 ENTAL\*SAVEB  
 ENTAU\*TPAT1  
 CMAL\*TPAT1

JPNOT\*TF370  
 ENTBK\*2527  
 ENTBK\*7775  
 STRB\*SAVEB  
 ENTAL\*SAVEB  
 ENTAU\*TPAK6  
 CMAL\*TPAK6  
 JPEQ\*TF370+6

RJP\*TFDIS  
 IJP\*TF37  
 SKP\*00

PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*

ENTALK\*64  
 STRAL\*BUFF1  
 ENTALK\*60  
 STRAL\*BUFF2  
 ENTAL\*TF40T+2  
 STRAL\*TFX  
 ENTAU\*TPAT1  
 ENTAL\*TPAT

RJP\*TF40T  
 ENTAL\*TPAT1  
 RJP\*TF40T  
 ENTAL\*TPAT2  
 RJP\*TF40T  
 ENTAL\*TPAT3

SET B TO 777770  
 B PLUS 7  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT

ERROR JUMP  
 SET B TO 002527  
 B MINUS 2  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 YES EXIT

ERROR DISPLAY  
 EXIT

CLEAR Y 40

SET TYPEOUT BUFFER  
 TO CODES FOR 40

SET UP  
 ERROR DISPLAY  
 CORRECT TO AU  
 SET AL TO 777777

TEST CLR  
 CLR AL  
 TEST CLR  
 SET AL TO 252525  
 TEST CLR  
 SET AL TO 525252

04415 76 4427 3047  
 04416 12 2154 3050  
 04417 76 4427 3051  
 04420 12 2156 3052  
 04421 76 4427 3053  
 04422 12 2160 3054  
 04423 76 4427 3055  
 04424 12 2162 3056

04425 76 4427 3057  
 04426 55 4376 3060  
 04427 00 0000 3061  
 04430 44 2253 3062  
 04431 40 2253 3063  
 04432 12 2253 3064  
 04433 63 4435 3065  
 04434 55 4427 3066

04435 76 1742 3067  
 04436 55 4376 3070

04437 00 0000 3071  
 04440 70 0064 3072

04441 44 2222 3073  
 04442 70 0061 3074  
 04443 44 2223 3075  
 04444 12 4452 3076  
 04445 44 2037 3077  
 04446 10 2146 3100  
 04447 36 0001 3101  
 04450 12 2144 3102

04451 45 2252 3103  
 04452 41 2252 3104  
 04453 12 2253 3105  
 04454 63 4521 3106

TF40T

TR40

TF41

TF41

RJP\*TF40T  
 ENTAL\*TPAT4  
 RJP\*TF40T  
 ENTAL\*TPAT5  
 RJP\*TF40T  
 ENTAL\*TPAT6  
 RJP\*TF40T  
 ENTAL\*TPAT7

RJP\*TF40T  
 IJP\*TF40  
 0\*0  
 STRAL\*TPAR  
 CL\*TPAR  
 ENTAL\*TPAR  
 JPALNZ\*TR40  
 IJP\*TF40T

RJP\*TFDIS  
 IJP\*TF40  
 PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL  
 0\*  
 ENTALK\*64

STRAL\*BUFF1  
 ENTALK\*61  
 STRAL\*BUFF2  
 ENTAL\*LOK+6  
 STRAL\*TFX  
 ENTAU\*TPAT1  
 ENTBK\*0001  
 ENTAL\*TPAT

STRALB\*TPAR#1  
 CLB\*TPAR-1  
 ENTAL\*TPAR  
 JPALNZ\*TR41

TEST CLR  
 SET AL TO 770000  
 TEST CLR  
 SET AL TO 007777  
 TEST CLR  
 SET AL TO 707070  
 TEST CLR  
 SET AL TO 070707

TEST CLR  
 EXIT  
 ENTRANCE  
 SAVE AL  
 CLEAR STORAGE  
 CHECK CLEAR  
 ERROR JUMP  
 EXIT CHECK

ERROR DISPLAY  
 ERROR EXIT

CLEAR Y+B 41  
 SET TYPEOUT BUFFER

TO CODES FOR 41

SET UP  
 ERROR DISPLAY  
 CORRECT TO AU  
 SET B TO 1  
 SET AL TO 777777

SAVE AL  
 TEST CLEAR  
 SET AL EQUAL CLEAR  
 ERROR JUMP

04455	36 0000	3113
04456	12 2146	3114
04457	45 2253	3115
04460	41 2253	3116
04461	12 2253	3117
04462	63 4521	3120
04463	32 2167	3121
04464	12 2150	3122
04465	45 2254	3123
04466	41 2254	3124
04467	12 2253	3125
04470	63 4521	3126
04471	32 2243	3127
04472	12 2152	3130
04473	45 2251	3131
04474	41 2251	3132
04475	12 2253	3133
04476	63 4521	3134
04477	32 2244	3135
04500	12 2156	3136
04501	45 2247	3137
04502	41 2247	3140
04503	12 2253	3141
04504	63 4521	3142
04505	32 2246	3143
04506	12 2150	3144
04507	45 2255	3145
04510	41 2255	3146
04511	12 2253	3147
04512	63 4521	3150
04513	32 2245	3151
04514	12 2152	3152
04515	45 2244	3153
04516	41 2244	3154
04517	12 2253	3155
04520	61 4522	3156

ENTBK\*0  
ENTAL\*TPAT1

STRALB\*TPAR  
CLB\*TPAR  
ENTAL\*TPAR  
JPALNZ\*TR41  
ENTB\*TPAB1+1  
ENTAL\*TPAT2  
STRALB\*TPAR+1  
CLB\*TPAR+1

ENTAL\*TPAR  
JPALNZ\*TR41  
ENTB\*TPAS4  
ENTAL\*TPAT3  
STRALB\*TPAR+2  
CLB\*TPAR-2  
ENTAL\*TPAR  
JPALNZ\*TR41

ENTB\*TPAS5  
ENTAL\*TPAT5  
STRALB\*TPAR-4  
CLB\*TPAR-4  
ENTAL\*TPAR  
JPALNZ\*TR41  
ENTB\*TPAS7  
ENTAL\*TPAT2

STRALB\*TPAR+2  
CLB\*TPAR+2  
ENTAL\*TPAR  
JPALNZ\*TR41  
ENTB\*TPAS6  
ENTAL\*TPAT3  
STRALB\*TPAR-7  
CLB\*TPAR-7

ENTAL\*TPAR  
JPALZ\*TR41+1

CLR B  
CLR AL

SAVE AL  
TEST CLEAR  
CHECK CLEAR  
ERROR JUMP  
SET B TO MINUS 1  
SET AL TO 252525  
SAVE AL  
TEST CLEAR

CHECK CLEAR  
ERROR JUMP  
SET B TO 2  
SET AL TO 525252  
SAVE AL  
TEST CLEAR  
CHECK CLEAR  
ERROR JUMP

SET B TO 4  
SET AL TO 007777  
SAVE AL  
TEST CLEAR  
CHECK CLEAR  
ERROR JUMP  
SET B TO MINUS 2  
SET AL TO 252525

SAVE AL  
TEST CLEAR  
CHECK CLEAR  
ERROR JUMP  
SET B TO 7  
SET AL TO 525252  
SAVE AL  
TEST CLEAR

CHECK CLEAR  
CORRECT EXIT

04521	76	1742	3157	TR41	RJP*TFDIS	ERROR DISPLAY
04522	55	4437	3160		IJP*TF41	EXIT
			3161	TS41	PROG*SCOTT*30APL64	
			3162		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			3163		REMARK*SHIFTED PATTERN IN AU	
			3164		REMARK*SHIFT COUNT IN AL	
04523	00	0000	3165	TS41	0*	RIGHT SHIFT AU 5041
04524	70	0065	3166		ENTALK*65	SET TYPEOUT BUFFER
04525	44	2222	3167		STRAL*BUFF1	TO CODES FOR 5041
04526	70	0060	3170		ENTALK*60	
04527	44	2223	3171		STRAL*BUFF2	
04530	70	0064	3172		ENTALK*64	
04531	44	2224	3173		STRAL*BUFF3	
04532	70	0061	3174		ENTALK*61	
04533	44	2225	3175		STRAL*BUFF4	
04534	12	4540	3176		ENTAL*TS411	SET UP
04535	44	2037	3177		STRAL*TFX	ERROR DISPLAY
04536	36	0001	3200		ENTBK*1	SET B TO 1
04537	10	2263	3201		ENTAU*TC04+1	SET AU TO 200000
04540	50	4101	3202	TS411	RSHAU*1	SHIFT AU RIGHT 1
04541	62	4545	3203		JPAUNZ*TS413	SHIFT OK CONTINUE
04542	12	0001	3204	TS412	ENTAL*0001	SET AL EQUAL B
04543	76	2040	3205		RJP*TSDIS	ERROR DISPLAY
04544	55	4523	3206		IJP*TS41	ERROR EXIT
04545	56	2200	3207	TS413	BSK*TPAB6	SHIFT COMPLETE
04546	34	4540	3210		JP*TS411	NO CONTINUE
04547	50	4101	3211		RSHAU*1	SHIFT AU END OFF
04550	62	4542	3212		JPAUNZ*TS412	ERROR JUMP
04551	10	2170	3213		ENTAU*TPAB2	SET AU TO 400000
04552	50	4121	3214		RSHAU*21	CHECK SIGN EXT
04553	50	6200	3215		CPAU*0	CHECK ALL ONES
04554	60	4544	3216		JPAUZ*TS413+1	EXIT
04555	50	6200	3217		CPAU*0	RESTORE AU
04556	36	0021	3220		ENTBK*21	CORRECT TO B
04557	34	4542	3221		JP*TS412	ERROR JUMP
			3222	TF42	PROG*CASEY*30APL64	

04560	00	0000	3223
04561	70	0064	3224
04562	44	2222	3225
04563	70	0062	3226
04564	44	2223	3227
04565	12	4570	3230
04566	44	2037	3231
04567	32	2144	3232
04570	42	2253	3233
04571	12	2253	3234
04572	10	2144	3235
04573	02	2145	3236
04574	63	4646	3237
04575	32	2146	3240
04576	42	2253	3241
04577	12	2253	3242
04600	10	2146	3243
04601	63	4646	3244
04602	32	2150	3245
04603	42	2253	3246
04604	12	2253	3247
04605	10	2150	3250
04606	02	2151	3251
04607	63	4646	3252
04610	32	2152	3253
04611	42	2253	3254
04612	12	2253	3255
04613	10	2152	3256
04614	02	2153	3257
04615	63	4646	3260
04616	32	2154	3261
04617	42	2253	3262
04620	12	2253	3263
04621	10	2154	3264
			3265
			3266
			3267

TF42

REMARK\*ERROR DISPLAY: FUNCT. CODE IN C REG.  
REMARK\*CORRECT PATTERN IN AU  
REMARK\*INCORRECT PATTERN IN AL

0\*  
ENTALK\*64  
STRAL\*BUFF1

ENTALK\*62  
STRAL\*BUFF2  
ENTAL\*LDK\*3  
STRAL\*TFX  
ENTB\*TPAT  
STRB\*TPAR  
ENTAL\*TPAR  
ENTAU\*TPAT

CMAL\*TPAT+1  
JPNOT\*TF420  
ENTB\*TPAT1  
STRB\*TPAR  
ENTAL\*TPAR  
ENTAU\*TPAT1  
JPALNZ\*TF420  
ENTB\*TPAT2

STRB\*TPAR  
ENTAL\*TPAR  
ENTAU\*TPAT2  
CMAL\*TPAT2+1  
JPNOT\*TF420  
ENTB\*TPAT3  
STRB\*TPAR  
ENTAL\*TPAR

ENTAU\*TPAT3  
CMAL\*TPAT3+1  
JPNOT\*TF420  
ENTB\*TPAT4  
STRB\*TPAR  
ENTAL\*TPAR  
ENTAU\*TPAT4

STORE B 42  
SET TIMEOUT BUFFER  
TO CODES FOR 42

SET UP  
ERROR DISPLAY  
SET B TO 777777  
SAVE B  
SET AL EQUAL B  
CORRECT TO AU

IS AL CORRECT  
ERROR JUMP  
CLR B  
SAVE B  
SET AL EQUAL B  
CLR AU  
ERROR JUMP  
SET B TO 252525

SAVE B  
SET AL EQUAL B  
CORRECT TO AU  
IS AL CORRECT  
ERROR JUMP  
SET B TO 525252  
SAVE B  
SET AL EQUAL B

CORRECT TO AU  
IS AL CORRECT  
ERROR JUMP  
SET B TO 770000  
SAVE B  
SET AL EQUAL B  
CORRECT TO AU

04622 02 2155 3270  
 04623 63 4646 3271  
 04624 32 2156 3272  
 04625 42 2253 3273  
 04626 12 2253 3274  
 04627 10 2156 3275  
 04630 02 2157 3276

04631 63 4646 3277  
 04632 32 2160 3300  
 04633 42 2253 3301  
 04634 12 2253 3302  
 04635 10 2160 3303  
 04636 02 2161 3304  
 04637 63 4646 3305  
 04640 32 2162 3306

04641 42 2253 3307  
 04642 12 2253 3310  
 04643 10 2162 3311  
 04644 02 2163 3312  
 04645 61 4647 3313  
 04646 76 1742 3314  
 04647 55 4560 3315  
 3316

TF420

TS42

3317  
 3320  
 3321

TS42

04650 00 0000 3322  
 04651 70 0065 3323  
 04652 44 2222 3324  
 04653 70 0060 3325  
 04654 44 2223 3326

04655 70 0064 3327  
 04656 44 2224 3330  
 04657 70 0062 3331  
 04660 44 2225 3332  
 04661 12 4665 3333

CMAL\*TPAT4\*1  
 JPNOT\*TF420  
 ENTB\*TPAT5  
 STRB\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAT5  
 CMAL\*TPAT5\*1

JPNOT\*TF420  
 ENTB\*TPAT6  
 STRB\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAT6  
 CMAL\*TPAT6\*1  
 JPNOT\*TF420  
 ENTB\*TPAT7

STRB\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAT7  
 CMAL\*TPAT7\*1  
 JPEQ\*TF420\*1  
 RJP\*TFDI5  
 IJP\*TF42  
 PROG\*SCOTT\*30APL64

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*SHIFT COUNT IN AU  
 REMARK\*SHIFTED PATTERN IN AL  
 0\*

ENTALK\*65  
 STRAL\*BUFF1  
 ENTALK\*60  
 STRAL\*BUFF2

ENTALK\*64  
 STRAL\*BUFF3  
 ENTALK\*62  
 STRAL\*BUFF4  
 ENTAL\*TS421

IS AL CORRECT  
 ERROR JUMP  
 SET B TO 007777  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU  
 IS AL CORRECT

ERROR JUMP  
 SET B TO 707070  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 070707

SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU  
 IS AL CORRECT  
 YES EXIT  
 ERROR DISPLAY  
 EXIT

RIGHT SHIFT AL 5042  
 SET TYPEOUT BUFFER  
 TO CODES FOR 5042

SET UP

SHEET 488  
 SB-10163  
 REVISION

3

04662 44 2037 3334

04663 36 0001 3335

04664 12 2263 3336

04665 50 4201 3337

04666 63 4673 3340

04667 42 2275 3341

04670 10 2275 3342

04671 76 2040 3343

04672 55 4650 3344

04673 56 2200 3345

04674 34 4665 3346

04675 50 4201 3347

04676 63 4667 3350

04677 12 2170 3351

04700 50 4221 3352

04701 50 6100 3353

04702 61 4672 3354

04703 50 6100 3355

04704 36 0021 3356

04705 34 4667 3357

3360

3361

3362

3363

04706 00 0000 3364

04707 70 0064 3365

04710 44 2222 3366

04711 70 0063 3367

04712 44 2223 3370

04713 12 4716 3371

04714 44 2037 3372

04715 32 2166 3373

04716 43 2252 3374

04717 12 2253 3375

04720 10 2166 3376

04721 02 2166 3377

STRAL\*TFX

ENTBK\*1

ENTAL\*TCOM\*1

RSHAL\*1

JPALNZ\*TS423

STRB\*SAVEB

ENTAU\*SAVEB

RJP\*TSDIS

IJP\*TS42

BSK\*TPAB6

JP\*TS421

RSHAL\*1

JPALNZ\*TS422

ENTAL\*TPAB2

RSHAL\*21

CPAL\*0

JPALZ\*TS423-1

CPAL\*0

ENTBK\*21

JP\*TS422

PROG\*CASEY\*30APL64

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

REMARK\*CORRECT PATTERN IN AU

REMARK\*INCORRECT PATTERN IN AL

0\*

ENTALK\*64

STRAL\*BUFF1

ENTALK\*63

STRAL\*BUFF2

ENTAL\*LOK\*3

STRAL\*TFX

ENTB\*TPAB1

STRBB\*TPAR\*1

ENTAL\*TPAR

ENTAU\*TPAB1

CMAL\*TPAB1

ERROR DISPLAY

SET B TO 1

SET AL TO 200000

SHIFT AL RIGHT 1

SHIFT OK CONTINUE

SET AU EQUAL B

ERROR DISPLAY

ERROR EXIT

SHIFT COMPLETE

NO CONTINUE

RIGHT SHIFT END OFF

ERROR JUMP

SET AL TO 400000

CHECK SIGN EXT

CHECK ALL ONES

EXIT

RESTORE AL

CORRECT COUNT TO B

ERROR JUMP

STORE B AT Y+B

SET TYPEOUT BUFFER  
TO CODES FOR 43SET UP  
ERROR DISPLAY  
SET B TO 1  
SAVE BSET AL EQUAL B  
CORRECT TO AU  
IS AL CORRECT

04722	63	4766	3400
04723	32	2243	3401
04724	43	2251	3402
04725	12	2253	3403
04726	10	2243	3404
04727	02	2243	3405
04730	63	4766	3406
04731	32	2167	3407
04732	43	2254	3410
04733	12	2253	3411
04734	10	2167	3412
04735	02	2167	3413
04736	63	4766	3414
04737	32	2244	3415
04740	43	2247	3416
04741	12	2253	3417
04742	10	2244	3420
04743	02	2244	3421
04744	63	4766	3422
04745	36	0000	3423
04746	43	2253	3424
04747	12	2253	3425
04750	10	2146	3426
04751	63	4766	3427
04752	32	2246	3430
04753	43	2255	3431
04754	12	2253	3432
04755	10	2246	3433
04756	02	2246	3434
04757	63	4766	3435
04760	32	2245	3436
04761	43	2244	3437
04762	12	2253	3440
04763	10	2245	3441
04764	02	2245	3442
04765	61	4767	3443

JPNOT\*TF430  
 ENTB\*TPAS4  
 STRBB\*TPAR-2

ENTAL\*TPAR  
 ENTAU\*TPAS4  
 CMAL\*TPAS4  
 JPNOT\*TF430  
 ENTB\*TPAB1+1  
 STRBB\*TPAR+1  
 ENTAU\*TPAR  
 ENTAU\*TPAB1+1

CMAL\*TPAB1+1  
 JPNOT\*TF430  
 ENTB\*TPAS5  
 STRBB\*TPAR-4  
 ENTAU\*TPAR  
 ENTAU\*TPAS5  
 CMAL\*TPAS5  
 JPNOT\*TF430

ENTBK\*0  
 STRBB\*TPAR  
 ENTAU\*TPAR  
 ENTAU\*TPAT1  
 JPALNZ\*TF430  
 ENTB\*TPAS7  
 STRBB\*TPAR+2  
 ENTAU\*TPAR

ENTAU\*TPAS7  
 CMAL\*TPAS7  
 JPNOT\*TF430  
 ENTB\*TPAS6  
 STRBB\*TPAR-7  
 ENTAU\*TPAR  
 ENTAU\*TPAS6  
 CMAL\*TPAS6

JPEQ\*TF430+1

ERROR JUMP  
 SET B TO 2  
 SAVE B

SET AL EQUAL B  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO MINUS 1  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU

IS AL CORRECT  
 ERROR JUMP  
 SET B TO 4  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP

CLR B  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU  
 ERROR JUMP  
 SET B TO MINUS 2  
 SAVE B  
 SET AL EQUAL B

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 7  
 SAVE B  
 SET AL EQUAL B  
 CORRECT TO AU  
 IS AL CORRECT

YES EXIT



04766	76	1742	3444	TF430	RJP*TFDIS	ERROR DISPLAY
04767	55	4706	3445		IJP*TF43	EXIT
			3446	TS43	PROG*SCOTT*30APL64	
			3447		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			3450		REMARK*SHIFTED PATTERN OR SHIFT COUNT IN AU	
			3451		REMARK*SHIFTED PATTERN OR SHIFT COUNT IN AL	
04770	00	0000	3452	TS43	0*	RIGHT SHIFT A 5043
04771	70	0065	3453		ENTALK*65	SET TYPEOUT BUFFER
04772	44	2222	3454		STRAL*BUFF1	TO CODES FOR 5043
04773	70	0060	3455		ENTALK*60	
04774	44	2223	3456		STRAL*BUFF2	
04775	70	0064	3457		ENTALK*64	
04776	44	2224	3460		STRAL*BUFF3	
04777	70	0063	3461		ENTALK*63	
05000	44	2225	3462		STRAL*BUFF4	
05001	12	5006	3463		ENTAL*TS431	SET UP
05002	44	2037	3464		STRAL*TFX	ERROR DISPLAY
05003	36	0001	3465		ENTBK*1	SET B TO 1
05004	10	2263	3466		ENTAU*TC04*1	SET AU TO 200000
05005	70	0000	3467		ENTALK*0	CLR AL
05006	50	4301	3470	TS431	RSHA*1	SHIFT A RIGHT 1
05007	62	5014	3471		JPAUNZ*TS433	SHIFT OK CONTINUE
05010	42	2275	3472	TS432	STRB*SAVEB	SET AL EQUAL B
05011	12	2275	3473		ENTAL*SAVEB	
05012	76	2040	3474		RJP*TSDIS	ERROR DISPLAY
05013	55	4770	3475		IJP*TS43	ERROR EXIT
05014	56	2200	3476	TS433	BSK*TPAB6	SHIFT COMPLETE
05015	34	5006	3477		JP*TS431	NO CONTINUE
05016	50	4301	3500		RSHA*1	SHIFT AU RIGHT TO AL
05017	62	5010	3501		JPAUNZ*TS432	ERROR JUMP
05020	36	0000	3502		ENTBK*0	CLR B
05021	50	4301	3503	TS434	RSHA*1	SHIFT A RIGHT 1
05022	63	5027	3504		JPALNZ*TS436	SHIFT OK CONTINUE
05023	42	2275	3505	TS435	STRB*SAVEB	SET AL EQUAL B
05024	12	2275	3506		ENTAL*SAVEB	
05025	76	2040	3507		RJP*TSDIS	ERROR DISPLAY
05026	55	4770	3510		IJP*TS43	ERROR EXIT

05027	56	2200	3511	TS436	BSK*TPAB6	SHIFT COMPLETE
05030	34	5021	3512		JP*TS434	NO CONTINUE
05031	50	4301	3513		RSHA*1	SHIFT A END OFF
05032	63	5023	3514		JPALNZ*TS435	ERROR JUMP
05033	10	2170	3515		ENTAU*TPAB2	SET AU TO 400000
05034	50	4343	3516		RSHA*43	CHECK SIGN EXT
05035	06	2144	3517		CMSK*TPAT	IS AU AND AL CORRECT
05036	63	5024	3520		JPNOT*TS435+1	ERROR JUMP
05037	55	4770	3521		IJP*TS43	EXIT
			3522	TF44	PROG*CASEY*30APL64	
			3523		REMARK*ERROR DISPLAY, FUNCT, CODE IN C REG.	
			3524		REMARK*CORRECT PATTERN IN AU	
			3525		REMARK*INCORRECT PATTERN IN AL	
05040	00	0000	3526	TF44	0*	STORE AL 44
05041	70	0064	3527		ENTALK*64	SET TYPEOUT BUFFER
05042	44	2222	3530		STRAL*BUFF1	TO CODES FOR 44
05043	70	0064	3531		ENTALK*64	
05044	44	2223	3532		STRAL*BUFF2	
05045	10	5050	3533		ENTAU*LOK+3	SET UP
05046	46	2037	3534		STRAU*TFX	ERROR DISPLAY
05047	12	2144	3535		ENTAL*TPAT	SET AL TO 777777
05050	44	2253	3536		STRAL*TPAR	SAVE AL
05051	10	2253	3537		ENTAU*TPAR	SET AU EQUAL AL
05052	06	2256	3540		CMSK*TC01	IS AU CORRECT
05053	63	5117	3541		JPNOT*TF440	ERROR JUMP
05054	12	2146	3542		ENTAL*TPAT1	CLR AL
05055	44	2253	3543		STRAL*TPAR	SAVE AL
05056	10	2253	3544		ENTAU*TPAR	SET AU EQUAL AL
05057	06	2256	3545		CMSK*TC01	IS AU CORRECT
05060	63	5117	3546		JPNOT*TF440	ERROR JUMP
05061	12	2150	3547		ENTAL*TPAT2	SET AL TO 252525
05062	44	2253	3550		STRAL*TPAR	SAVE AL
05063	10	2253	3551		ENTAU*TPAR	SET AU EQUAL AL
05064	06	2256	3552		CMSK*TC01	IS AU CORRECT
05065	63	5117	3553		JPNOT*TF440	ERROR JUMP
05066	12	2152	3554		ENTAL*TPAT3	SET AL TO 525252

05067 44 2253 3555  
 05070 10 2253 3556  
 05071 06 2256 3557  
 05072 63 5117 3560  
 05073 12 2154 3561  
 05074 44 2253 3562  
 05075 10 2253 3563  
 05076 06 2256 3564

05077 63 5117 3565  
 05100 12 2156 3566  
 05101 44 2253 3567  
 05102 10 2253 3570  
 05103 06 2256 3571  
 05104 63 5117 3572  
 05105 12 2160 3573  
 05106 44 2253 3574

05107 10 2253 3575  
 05110 06 2256 3576  
 05111 63 5117 3577  
 05112 12 2162 3600  
 05113 44 2253 3601  
 05114 10 2253 3602  
 05115 06 2256 3603  
 05116 61 5121 3604

05117 50 4722 3605  
 05120 76 1742 3606  
 05121 55 5040 3607

05122 00 0000 3614

05123 70 0065 3615  
 05124 44 2222 3616  
 05125 70 0060 3617  
 05126 44 2223 3620

STRAL\*TPAR  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF440  
 ENTAL\*TPAT4  
 STRAL\*TPAR  
 ENTAU\*TPAR  
 CMSK\*TC01

JPNOT\*TF440  
 ENTAL\*TPAT5  
 STRAL\*TPAR  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF440  
 ENTAL\*TPAT6  
 STRAL\*TPAR

ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF440  
 ENTAL\*TPAT7  
 STRAL\*TPAR  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPEQ\*TF440+2

TF440

TS44

TS44

LSHA\*22  
 RJP\*TFDIS  
 IJP\*TF44

PROG\*SCOTT\*30APL64

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

REMARK\*CORRECT OR INCORRECT PATTERN IN AU

REMARK\*CORRECT PATTERN OR SCALE COUNT IN AL

0\*

ENTALK\*65  
 STRAL\*BUFF1  
 ENTALK\*60  
 STRAL\*BUFF2

SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP  
 SET AL TO 770000  
 SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT

ERROR JUMP  
 SET AL TO 007777  
 SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP  
 SET AL TO 707070  
 SAVE AL

SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP  
 SET AL TO 070707  
 SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 YES EXIT

EXCHANGE REGS  
 ERROR DISPLAY  
 EXIT

SCALE FACTOR 5044

SET TYPEOUT BUFFER  
 TO CODES FOR 5044

05127 70 0064 3621  
05130 44 2224 3622

05131 70 0064 3623  
05132 44 2225 3624  
05133 12 5142 3625  
05134 44 2037 3626  
05135 36 0000 3627  
05136 10 2146 3630  
05137 12 2166 3631  
05140 46 2306 3632

05141 44 2307 3633  
05142 50 4442 3634  
05143 63 5147 3635  
05144 12 2263 3636  
05145 06 2144 3637  
05146 61 5151 3640  
05147 76 2040 3641  
05150 55 5122 3642

05151 12 0017 3643  
05152 42 2275 3644  
05153 02 2275 3645  
05154 63 5147 3646  
05155 10 2306 3647  
05156 12 2307 3650  
05157 50 4701 3651  
05160 56 2275 3652

05161 34 5140 3653  
05162 36 0000 3654  
05163 10 2144 3655  
05164 12 2167 3656  
05165 46 2306 3657  
05166 44 2307 3660  
05167 50 4442 3661  
05170 02 2144 3662

05171 63 5147 3663  
05172 12 2173 3664

ENTALK\*64  
STRAL\*BUFF3

ENTALK\*64  
STRAL\*BUFF4  
ENTAL\*TS441+2  
STRAL\*TFX  
ENTBK\*0  
ENTAU\*TPAT1  
ENTAL\*TPAB1  
STRAU\*TSH

STRAL\*TSCOT  
SF\*42  
JPALNZ\*TS443  
ENTAL\*TC04+1  
CMSK\*TPAT  
JPEQ\*LOK+3  
RJP\*TSDIS  
IJP\*TS44

ENTAL\*0017  
STRB\*SAVEB  
CMAL\*SAVEB  
JPNOT\*TS443  
ENTAU\*TSH  
ENTAL\*TSCOT  
LSHA\*1  
BSK\*SCCNT+1

JP\*TS441  
ENTBK\*0  
ENTAU\*TPAT  
ENTAL\*TPAB1+1  
STRAU\*TSH  
STRAL\*TSCOT  
SF\*42  
CMAL\*TPAT

JPNOT\*TS443  
ENTAL\*TPAB3+1

SET UP  
ERROR DISPLAY  
CLR B  
CLR AU  
SET AL TO 000001  
SAVE AU

SAVE AL  
NORMALIZE  
ERROR JUMP  
CORRECT TO AL  
IS AU CORRECT  
YES CONTINUE  
ERROR DISPLAY  
ERROR EXIT

SET AL EQUAL SCALE  
SET AL EQUAL B

ERROR JUMP  
RESTORE AU  
RESTORE AL  
SHIFT PATTERN  
ALL PATTERNS CHECKED

NO CONTINUE  
CLR B  
SET AU TO 777777  
SET AL TO 777776  
SAVE AU  
SAVE AL  
NORMALIZE  
IS AL CORRECT

ERROR JUMP  
CORRECT TO AL

SHEET 494 REVISION B  
SB-10163

05173 06 2144 3665  
05174 63 5147 3666  
05175 12 0017 3667  
05176 42 2275 3670

05177 02 2275 3671  
05200 63 5147 3672  
05201 10 2306 3673  
05202 12 2307 3674  
05203 50 4701 3675  
05204 56 2275 3676  
05205 34 5165 3677  
05206 55 5122 3700

3701

3702

3703

3704

3705

3706

3707

3710

05207 00 0000  
05210 70 0064  
05211 44 2222  
05212 70 0065

05213 44 2223  
05214 10 5220  
05215 46 2037  
05216 36 0001  
05217 12 2144  
05220 45 2252  
05221 10 2253  
05222 06 2256

3711

3712

3713

3714

3715

3716

3717

3720

05223 63 5275  
05224 36 0002  
05225 12 2146  
05226 45 2251  
05227 10 2253  
05230 62 5275  
05231 36 0003  
05232 12 2150

3721

3722

3723

3724

3725

3726

3727

3730

CMSK\*TPAT  
JPNOT\*TS443  
ENTAL\*0017  
STRB\*SAVEB

CMAL\*SAVEB  
JPNOT\*TS443  
ENTAU\*TSH  
ENTAL\*TSCT  
LSHA\*1  
BSK\*SCCNT\*1  
JP\*TS445  
IJP\*TS44

TF45

TF45

PROG\*CASEY\*30APL64  
REMARK\*ERROR DISPLAY. FUNCT. CODE IN C REG.  
REMARK\*CORRECT PATTERN IN AU  
REMARK\*INCORRECT PATTERN IN AL  
0\*  
ENTALK\*64  
STRAL\*BUFF1  
ENTALK\*65

STRAL\*BUFF2  
ENTAU\*LOK\*4  
STRAU\*TFX  
ENTBK\*0001  
ENTAL\*TPAT  
STRALB\*TPAR\*1  
ENTAU\*TPAR  
CMSK\*TC01

JPNOT\*TF450  
ENTBK\*0002  
ENTAL\*TPAT1  
STRALB\*TPAR\*2  
ENTAU\*TPAR  
JPAUNZ\*TF450  
ENTBK\*0003  
ENTAL\*TPAT2

IS AU CORRECT  
ERROR JUMP  
SET AL EQUAL SCALE  
SET AL EQUAL B

ERROR JUMP  
RESTORE AU  
RESTORE AL  
SHIFT PATTERN  
ALL PATTERNS CHECKED  
NO CONTINUE  
EXIT

STORE AL + B 45  
SET TYPEOUT BUFFER  
TO CODES FOR 45

SET UP  
ERROR DISPLAY  
SET B TO 1  
SET AL TO 777777  
SAVE AL  
SET AU EQUAL AL  
IS AU CORRECT

ERROR JUMP  
SET B TO 2  
CLR AL  
SAVE AL  
SET AU EQUAL AL  
ERROR JUMP  
SET B TO 3  
SET AL TO 252525

05233	45	2250	3731
05234	10	2253	3732
05235	06	2256	3733
05236	63	5275	3734
05237	36	0004	3735
05240	12	2152	3736

05241	45	2247	3737
05242	10	2253	3740
05243	06	2256	3741
05244	63	5275	3742
05245	36	0005	3743
05246	12	2154	3744
05247	45	2246	3745
05250	10	2253	3746

05251	06	2256	3747
05252	63	5275	3750
05253	36	0000	3751
05254	12	2156	3752
05255	45	2253	3753
05256	10	2253	3754
05257	06	2256	3755
05260	63	5275	3756

05261	36	0001	3757
05262	12	2160	3760
05263	45	2252	3761
05264	10	2253	3762
05265	06	2256	3763
05266	63	5275	3764
05267	36	0002	3765
05270	12	2162	3766

05271	45	2251	3767
05272	10	2253	3770
05273	06	2256	3771
05274	61	5277	3772
05275	50	4722	3773
05276	76	1742	3774
05277	55	5207	3775

TF450

STRALB\*TPAR\*3  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF450  
 ENTBK\*0004  
 ENTAL\*TPAT3

STRALB\*TPAR\*4  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF450  
 ENTBK\*0005  
 ENTAL\*TPAT4  
 STRALB\*TPAR\*5  
 ENTAU\*TPAR

CMSK\*TC01  
 JPNOT\*TF450  
 ENTBK\*0000  
 ENTAL\*TPAT5  
 STRALB\*TPAR  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF450

ENTBK\*0001  
 ENTAL\*TPAT6  
 STRALB\*TPAR-1  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPNOT\*TF450  
 ENTBK\*0002  
 ENTAL\*TPAT7

STRALB\*TPAR\*2  
 ENTAU\*TPAR  
 CMSK\*TC01  
 JPEQ\*TF450\*2  
 LSHA\*22  
 RJP\*TFDIS  
 IJP\*TF45

SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP  
 SET B TO 4  
 SET AL TO 525252

SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP  
 SET B TO 5  
 SET AL TO 770000  
 SAVE AL  
 SET AU EQUAL AL

IS AU CORRECT  
 ERROR JUMP  
 CLR B  
 SET AL TO 007777  
 SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP

SET B TO 1  
 SET AL TO 707070  
 SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 ERROR JUMP  
 SET B TO 2  
 SET AL TO 070707

SAVE AL  
 SET AU EQUAL AL  
 IS AU CORRECT  
 YES EXIT  
 EXCHANGE REGS  
 ERROR DISPLAY  
 EXIT

		3776	TS45	PROG*SCOTT*30APL64	
		3777		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
		4000		REMARK*SHIFTED PATTERN IN AU	
		4001		REMARK*SHIFT COUNT IN AL	
05300	00	0000	4002	0*	LEFT SHIFT AU 5045
05301	70	0065	4003	ENTALK*65	SET TYPEOUT BUFFER
05302	44	2222	4004	STRAL*BUFF1	TO CODES FOR 5045
05303	70	0060	4005	ENTALK*60	
05304	44	2223	4006	STRAL*BUFF2	
05305	70	0064	4007	ENTALK*64	
05306	44	2224	4010	STRAL*BUFF3	
05307	70	0065	4011	ENTALK*65	
05310	44	2225	4012	STRAL*BUFF4	
05311	12	5316	4013	ENTAL*TS451	SET UP
05312	44	2037	4014	STRAL*TFX	ERROR DISPLAY
05313	36	0001	4015	ENTBK*1	SET B TO 1
05314	70	0000	4016	ENTALK*0	CLR AL
05315	10	2166	4017	ENTAU*TPAB1	SET AU TO 000001
05316	50	4501	4020	LSHAU*1	SHIFT AU LEFT 1
05317	62	5323	4021	JPAUNZ*LOK*4	SHIFT OK CONTINUE
05320	42	2275	4022	STRB*SAVEB	SET AL EQUAL B
05321	12	2275	4023	ENTAL*SAVEB	
05322	76	2040	4024	RJP*TSDIS	ERROR DISPLAY
05323	55	5300	4025	IJP*TS45	ERROR EXIT
05324	56	2201	4026	BSK*TPAB6+1	SHIFT COMPLETE
05325	34	5316	4027	JP*TS451	NO CONTINUE
05326	12	2170	4030	ENTAL*TPAB2	SET AL TO 400000
05327	06	2256	4031	CMSK*TC01	IS AU CORRECT
05330	63	5322	4032	JPNOT*TS453	ERROR JUMP
05331	50	4501	4033	LSHAU*1	TEST END AROUND
05332	12	2166	4034	ENTAL*TPAB1	CORRECT TO AL
05333	06	2256	4035	CMSK*TC01	IS AU CORRECT
05334	63	5322	4036	JPNOT*TS453	ERROR JUMP
05335	55	5300	4037	IJP*TS45	EXIT
		4040	TF46	PROG*CASEY*30APL64	
		4041		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	



		4042	REMARK*CORRECT PATTERN IN AU
		4043	REMARK*INCORRECT PATTERN IN AL
05336	00 0000	4044	0*
05337	70 0064	4045	ENTALK*64
05340	44 2222	4046	STRAL*BUFF1
05341	70 0066	4047	ENTALK*66
05342	44 2223	4050	STRAL*BUFF2
05343	12 5346	4051	ENTAL*LOK*3
05344	44 2037	4052	STRAL*TFX
			STORE AU 46
			SET TYPEOUT BUFFER
			TO CODES FOR 46
			SET UP
			ERROR DISPLAY
05345	10 2144	4053	SET AU TO 777777
05346	46 2253	4054	SAVE AU
05347	12 2253	4055	SET AL EQUAL AU
05350	02 2144	4056	IS AL CORRECT
05351	63 5415	4057	ERROR JUMP
05352	10 2146	4060	CLR AU
05353	46 2253	4061	SAVE AU
05354	12 2253	4062	SET AL EQUAL AU
			IS AL CORRECT
			ERROR JUMP
05355	02 2146	4063	SET AU TO 252525
05356	63 5415	4064	SAVE AU
05357	10 2150	4065	SET AL EQUAL AU
05360	46 2253	4066	IS AL CORRECT
05361	12 2253	4067	ERROR JUMP
05362	02 2150	4070	SET AU TO 525252
05363	63 5415	4071	
05364	10 2152	4072	
			SAVE AU
05365	46 2253	4073	SET AL EQUAL AU
05366	12 2253	4074	IS AL CORRECT
05367	02 2152	4075	ERROR JUMP
05370	63 5415	4076	SET AU TO 770000
05371	10 2154	4077	SAVE AU
05372	46 2253	4100	SET AL EQUAL AU
05373	12 2253	4101	IS AL CORRECT
05374	02 2154	4102	
			ERROR JUMP
05375	63 5415	4103	SET AU TO 007777
05376	10 2156	4104	SAVE AU
05377	46 2253	4105	



05400 12 2253 4106  
05401 02 2156 4107  
05402 63 5415 4110

05403 10 2160 4111  
05404 46 2253 4112  
05405 12 2253 4113  
05406 02 2160 4114  
05407 63 5415 4115  
05410 10 2162 4116  
05411 46 2253 4117  
05412 12 2253 4120

05413 02 2162 4121  
05414 61 5416 4122  
05415 76 1742 4123  
05416 55 5336 4124  
4125  
4126  
4127  
4130

05417 00 0000 4131  
05420 70 0065 4132  
05421 44 2222 4133  
05422 70 0060 4134  
05423 44 2223 4135  
05424 70 0064 4136  
05425 44 2224 4137  
05426 70 0066 4140

05427 44 2225 4141  
05430 12 5435 4142  
05431 44 2037 4143  
05432 36 0001 4144  
05433 10 2146 4145  
05434 12 2166 4146  
05435 50 4601 4147  
05436 63 5442 4150

05437 42 2275 4151

ENTAL\*TPAR  
CMAL\*TPAT5  
JPNOT\*TF460

ENTAU\*TPAT6  
STRAU\*TPAR  
ENTAL\*TPAR  
CMAL\*TPAT6  
JPNOT\*TF460  
ENTAU\*TPAT7  
STRAU\*TPAR  
ENTAL\*TPAR

CMAL\*TPAT7  
JREQ\*TF460+1  
RJP\*TFDIS  
IJP\*TF46

TF460

TS46

PROG\*SCOTT\*30APL64  
REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
REMARK\*SHIFT COUNT IN AU  
REMARK\*SHIFTED PATTERN IN AL

TS46

0\*  
ENTALK\*65  
STRAL\*BUFF1  
ENTALK\*60  
STRAL\*BUFF2  
ENTALK\*64  
STRAL\*BUFF3  
ENTALK\*66

TS461

STRAL\*BUFF4  
ENTAL\*TS461  
STRAL\*TFX  
ENTBK\*1  
ENTAU\*TPAT1  
ENTAL\*TPAB1  
LSHAL\*1  
JPALNZ\*LOK+4

STRB\*SAVEB

SET AL EQUAL AU  
IS AL CORRECT  
ERROR JUMP

SET AU TO 707070  
SAVE AU  
SET AL EQUAL AU  
IS AL CORRECT  
ERROR JUMP  
SET AU TO 070707  
SAVE AU  
SET AL EQUAL AU

IS AL CORRECT  
YES EXIT  
ERROR DISPLAY  
EXIT

LEFT SHIFT AL 5046  
SET TYPEOUT BUFFER  
TO CODES FOR 5046

SET UP  
ERROR DISPLAY  
SET B TO 1  
CLRAU  
SET AL TO 000001  
SHIFT AL LEFT 1  
SHIFT OK CONTINUE

SET AU EQUAL B

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05440	10	2275	4152		ENTAU*SAVEB	
05441	76	2040	4153	TS462	RJP*TS015	ERROR DISPLAY
05442	55	5417	4154		IJP*TS46	ERROR EXIT
05443	56	2201	4155		BSK*TPAB6+1	SHIFT COMPLETE
05444	34	5435	4156		JP*TS461	NO CONTINUE
05445	02	2170	4157		CMAL*TPAB2	IS AL CORRECT
05446	61	5451	4160		JPEQ*LOK+3	YES CONTINUE
05447	10	2170	4161		ENTAU*TPAB2	CORRECT TO AU
05450	34	5441	4162		JP*TS462	ERROR JUMP
05451	50	4601	4163		LSHAL*1	TEST END OFF
05452	02	2166	4164		CMAL*TPAB1	IS AL CORRECT
05453	61	5442	4165		JPEQ*TS462+1	YES EXIT
05454	10	2166	4166		ENTAU*TPAB1	CORRECT TO AU
05455	34	5441	4167		JP*TS462	ERROR JUMP
			4170	TF47	PROG*CASEY*30APL64	
			4171		REMARK*ERROR DISPLAY, FUNOT. CODE IN C REG.	
			4172		REMARK*CORRECT PATTERN IN AU	
			4173		REMARK*INCORRECT PATTERN IN AL	
05456	00	0000	4174	TF47	0*	STORE AU + B 47
05457	70	0064	4175		ENTALK*64	SET TYPEOUT BUFFER
05460	44	2222	4176		STRAL*BUFF1	TO CODES FOR 47
05461	70	0067	4177		ENTALK*67	
05462	44	2223	4200		STRAL*BUFF2	SET UP
05463	12	5467	4201		ENTAL*LOK+4	ERROR DISPLAY
05464	44	2037	4202		STRAL*TFX	SET B TO 1
05465	36	0001	4203		ENTBK*0001	SET AU TO 777777
05466	10	2144	4204		ENTAU*TPAT	SAVE AU
05467	47	2252	4205		STRAUB*TPAR+1	SET AL EQUAL AU
05470	12	2253	4206		ENTAL*TPAR	
05471	02	2144	4207		CMAL*TPAT	IS AL CORRECT
05472	63	5544	4210		JPNOT*TF470	ERROR JUMP
05473	36	0002	4211		ENTBK*0002	SET B TO 2
05474	10	2146	4212		ENTAU*TPAT1	CLR AU
05475	47	2251	4213		STRAUB*TPAR+2	SAVE AU
05476	12	2253	4214		ENTAL*TPAR	SET AL EQUAL AU
05477	63	5544	4215		JPALNZ*TF470	ERROR JUMP
05500	36	0003	4216		ENTBK*0003	SET B TO 3

05501 10 2150 4217  
 05502 47 2250 4220  
 05503 12 2253 4221  
 05504 02 2150 4222  
 05505 63 5544 4223  
 05506 36 0004 4224

05507 10 2152 4225  
 05510 47 2247 4226  
 05511 12 2253 4227  
 05512 02 2152 4230  
 05513 63 5544 4231  
 05514 36 0005 4232  
 05515 10 2154 4233  
 05516 47 2246 4234

05517 12 2253 4235  
 05520 02 2154 4236  
 05521 63 5544 4237  
 05522 36 0000 4240  
 05523 10 2156 4241  
 05524 47 2253 4242  
 05525 12 2253 4243  
 05526 02 2156 4244

05527 63 5544 4245  
 05530 36 0001 4246  
 05531 10 2160 4247  
 05532 47 2252 4250  
 05533 12 2253 4251  
 05534 02 2160 4252  
 05535 63 5544 4253  
 05536 36 0002 4254

05537 10 2162 4255  
 05540 47 2251 4256  
 05541 12 2253 4257  
 05542 02 2162 4260  
 05543 61 5545 4261  
 05544 76 1742 4262

TF470

ENTAU\*TPAT2  
 STRAUB\*TPAR-3  
 ENTAL\*TPAR  
 CMAL\*TPAT2  
 JPNOT\*TF470  
 ENTBK\*0004

ENTAU\*TPAT3  
 STRAUB\*TPAR-4  
 ENTAL\*TPAR  
 CMAL\*TPAT3  
 JPNOT\*TF470  
 ENTBK\*0005  
 ENTAU\*TPAT4  
 STRAUB\*TPAR-5

ENTAL\*TPAR  
 CMAL\*TPAT4  
 JPNOT\*TF470  
 ENTBK\*0000  
 ENTAU\*TPAT5  
 STRAUB\*TPAR  
 ENTAL\*TPAR  
 CMAL\*TPAT5

JPNOT\*TF470  
 ENTBK\*0001  
 ENTAU\*TPAT6  
 STRAUB\*TPAR-1  
 ENTAL\*TPAR  
 CMAL\*TPAT6  
 JPNOT\*TF470  
 ENTBK\*0002

ENTAU\*TPAT7  
 STRAUB\*TPAR-2  
 ENTAL\*TPAR  
 CMAL\*TPAT7  
 JPEQ\*TF470+1  
 RJP\*TFDIS

SET AU TO 252525  
 SAVE AU  
 SET AL EQUAL AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 4

SET AU TO 525252  
 SAVE AU  
 SET AL EQUAL AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 5  
 SET AU TO 770000  
 SAVE AU

SET AL EQUAL AU  
 IS AL CORRECT  
 ERROR JUMP  
 CLR B  
 SET AU TO 007777  
 SAVE AU  
 SET AL EQUAL AU  
 IS AL CORRECT

ERROR JUMP  
 SET B TO 1  
 SET AU TO 707070  
 SAVE AU  
 SET AL EQUAL AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET B TO 2

SET AU TO 070707  
 SAVE AU  
 SET AL EQUAL AU  
 IS AL CORRECT  
 YES EXIT  
 ERROR DISPLAY

05545	55	5456	4263		IJP*TF47	EXIT
			4264	TS47	PROG*SCOTT*30APL64	
			4265		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			4266		REMARK*CORRECT OR INCORRECT PATTERN IN AU	
			4267		REMARK*INCORRECT OR CORRECT PATTERN IN AL	
05546	00	0000	4270	TS47	0*	LEFT SHIFT A 5047
05547	70	0065	4271		ENTALK*65	SET TYPEOUT BUFFER
05550	44	2222	4272		STRAL*BUFF1	TO CODES FOR 5047
05551	70	0060	4273		ENTALK*60	
05552	44	2223	4274		STRAL*BUFF2	
05553	70	0064	4275		ENTALK*64	
05554	44	2224	4276		STRAL*BUFF3	
05555	70	0067	4277		ENTALK*67	
05556	44	2225	4300		STRAL*BUFF4	
05557	12	5563	4301		ENTAL*TS471	SET UP
05560	44	2037	4302		STRAL*TFX	ERROR DISPLAY
05561	10	2146	4303		ENTAU*TPAT1	CLR AU
05562	12	2166	4304		ENTAL*TPAB1	SET AL TO 000001
05563	50	4722	4305	TS471	LSHA*22	SHIFT A LEFT 22
05564	61	5567	4306		JPALZ*LOK*3	SHIFT OK CONTINUE
05565	76	2040	4307	TS472	RJP*TS0IS	ERROR DISPLAY
05566	55	5546	4310		IJP*TS47	ERROR EXIT
05567	62	5572	4311		JPAUNZ*LOK*3	IS AU CORRECT
05570	12	2166	4312		ENTAL*TPAB1	CORRECT TO AL
05571	34	5565	4313		JP*TS472	ERROR JUMP
05572	50	4722	4314		LSHA*22	SHIFT A LEFT 22
05573	62	5565	4315		JPAUNZ*TS472	ERROR JUMP
05574	02	2166	4316		CMAL*TPAB1	IS AL CORRECT
05575	61	5566	4317		JPEQ*TS472*1	EXIT
05576	10	2166	4320		ENTAU*TPAB1	CORRECT TO AU
05577	34	5565	4321		JP*TS472	ERROR JUMP
			4322	TF51	PROG*CASEY*30APL64	
			4323		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			4324		REMARK*CORRECT PATTERN IN AU	
			4325		REMARK*INCORRECT PATTERN IN AL	
05600	00	0000	4326	TF51	0*	SELECTIVE SET 51

05601 70 0065 4327  
05602 44 2222 4330

05603 70 0061 4331  
05604 44 2223 4332  
05605 12 5610 4333  
05606 44 2037 4334  
05607 12 2146 4335  
05610 51 2144 4336  
05611 76 5637 4337  
05612 51 2146 4340

05613 76 5637 4341  
05614 12 2160 4342  
05615 51 2162 4343  
05616 76 5637 4344  
05617 12 2162 4345  
05620 51 2160 4346  
05621 76 5637 4347  
05622 12 2150 4350

05623 51 2152 4351  
05624 76 5637 4352  
05625 12 2152 4353  
05626 51 2150 4354  
05627 76 5637 4355  
05630 12 2167 4356  
05631 51 2166 4357  
05632 76 5637 4360

05633 12 2166 4361  
05634 51 2167 4362  
05635 76 5637 4363  
05636 55 5600 4364  
05637 00 0000 4365  
05640 02 2144 4366  
05641 63 5643 4367  
05642 55 5637 4370

05643 10 2144 4371  
05644 76 1742 4372

ENTALK\*65  
STRAL\*BUFF1

ENTALK\*61  
STRAL\*BUFF2  
ENTAL\*LOK+3  
STRAL\*TFX  
ENTAL\*TPAT1  
SLSET\*TPAT  
RJP\*TF510  
SLSET\*TPAT1

RJP\*TF510  
ENTAL\*TPAT6  
SLSET\*TPAT7  
RJP\*TF510  
ENTAL\*TPAT7  
SLSET\*TPAT6  
RJP\*TF510  
ENTAL\*TPAT2

SLSET\*TPAT3  
RJP\*TF510  
ENTAL\*TPAT3  
SLSET\*TPAT2  
RJP\*TF510  
ENTAL\*TPAB1+1  
SLSET\*TPAB1  
RJP\*TF510

ENTAL\*TPAB1  
SLSET\*TPAB1+1  
RJP\*TF510  
IJP\*TF51  
0\*0  
CMAL\*TPAT  
JPNOT\*TF511  
IJP\*TF510

TF510

TF511

ENTAU\*TPAT  
RJP\*TFDIS

SET TYPEOUT BUFFER  
TO CODES FOR 51

SET UP  
ERROR DISPLAY  
CLR AL  
SET WITH 777777  
TEST SET  
SET WITH 000000

TEST SET  
SET AL TO 707070  
SET WITH 070707  
TEST SET  
SET AL TO 070707  
SET WITH 707070  
TEST SET  
SET AL TO 252525

SET WITH 525252  
TEST SET  
SET AL TO 525252  
SET WITH 252525  
TEST SET  
SET AL TO 777776  
SET WITH 000001  
TEST SET

SET AL TO 000001  
SET WITH 777776  
TEST SET  
EXIT  
ENTRANCE  
IS AL CORRECT  
ERROR JUMP  
EXIT CHECK

CORRECT TO AU  
ERROR DISPLAY

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B

05645	55	5600	4373		IJP*TS51	ERROR EXIT
			4374	TS51	PROG*SCOTT*30APL64	
			4375		REMARK*ERROR DISPLAY: FUNCT. CODE IN C REG.	
			4376		REMARK*THE A REGISTER WILL HOLD THE SUM OR	
			4377		REMARK*THE DIFFERENCE OF AN ADD OR SUBT A	
05646	00	0000	4400	TS51	0*	SKIP ON NO BORROW 5051
05647	70	0065	4401		ENTALK*65	SET TYPEOUT BUFFER
05650	44	2222	4402		STRAL*BUFF1	TO CODES FOR 5051
05651	70	0060	4403		ENTALK*60	
05652	44	2223	4404		STRAL*BUFF2	
05653	70	0065	4405		ENTALK*65	
05654	44	2224	4406		STRAL*BUFF3	
05655	70	0061	4407		ENTALK*61	
05656	44	2225	4410		STRAL*BUFF4	
05657	12	5664	4411		ENTAL*TS512*2	SET UP
05660	44	2037	4412		STRAL*TFX	ERROR DISPLAY
05661	10	2150	4413		ENTAU*TPAT2	SET AU TO 252525
05662	12	2150	4414		ENTAL*TPAT2	SET AL TO 252525
05663	20	2150	4415		ADDA*TPAT2	A+252525252525
05664	50	5100	4416		SKPNB0*0	CHECK NO SKIP
05665	34	5670	4417		JP*LOK+3	CHECK OK
05666	76	2040	4420	TS512	RJP*TSDIS	ERROR DISPLAY
05667	55	5646	4421		IJP*TS51	ERROR EXIT
05670	10	2152	4422		ENTAU*TPAT3	SET AU TO 525252
05671	12	2152	4423		ENTAL*TPAT3	SET AL TO 525252
05672	20	2152	4424		ADDA*TPAT3	A+525252525252
05673	50	5100	4425		SKPNB0*0	CHECK FOR SKIP
05674	34	5666	4426		JP*TS512	ERROR JUMP
05675	10	2150	4427		ENTAU*TPAT2	SET AU TO 252525
05676	12	2150	4430		ENTAL*TPAT2	SET AL TO 252525
05677	22	2152	4431		SUBA*TPAT3	A-525252525252
05700	50	5100	4432		SKPNB0*0	CHECK NO SKIP
05701	34	5703	4433		JP*LOK+2	CHECK OK
05702	34	5666	4434		JP*TS512	ERROR JUMP
05703	10	2152	4435		ENTAU*TPAT3	SET AU TO 525252
05704	12	2152	4436		ENTAL*TPAT3	SET AL TO 525252

05705 22 2150 4437  
 05706 50 5100 4440  
 05707 34 5666 4441  
 05710 55 5646 4442

TF52

4443  
 4444

SUBA\*TPAT2

SKPNB0\*0

JP\*TS512

IJP\*TS51

PROG\*CASEY\*30APL64

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

A-252525252525

CHECK FOR SKIP

ERROR JUMP

EXIT

REMARK\*CORRECT PATTERN IN AU

REMARK\*INCORRECT PATTERN IN AL

TF52

05711 00 0000 4445  
 05712 70 0065 4446  
 05713 44 2222 4447  
 05714 70 0062 4450  
 05715 44 2223 4451  
 05716 12 5721 4452

ENTALK\*65

STRAL\*BUFF1

ENTALK\*62

STRAL\*BUFF2

ENTAL\*LOK+3

SELECTIVE CLEAR 52

SET TYPEOUT BUFFER

TO CODES FOR 52

SET UP

05717 44 2037 4455  
 05720 12 2144 4456  
 05721 52 2146 4457  
 05722 63 5747 4460  
 05723 52 2144 4461  
 05724 63 5747 4462  
 05725 12 2160 4463  
 05726 52 2162 4464

STRAL\*TFX

ENTAL\*TPAT

SLCL\*TPAT1

JPALNZ\*TR52

SLCL\*TPAT

JPALNZ\*TR52

ENTAL\*TPAT6

SLCL\*TPAT7

ERROR DISPLAY

SET AL TO 777777

CLEAR WITH 000000

ERROR JUMP

CLEAR WITH 777777

ERROR JUMP

SET AL TO 707070

CLEAR WITH 070707

05727 63 5747 4465  
 05730 12 2162 4466  
 05731 52 2160 4467  
 05732 63 5747 4470  
 05733 12 2150 4471  
 05734 52 2152 4472  
 05735 63 5747 4473  
 05736 12 2152 4474

JPALNZ\*TR52

ENTAL\*TPAT7

SLCL\*TPAT6

JPALNZ\*TR52

ENTAL\*TPAT2

SLCL\*TPAT3

JPALNZ\*TR52

ENTAL\*TPAT3

ERROR JUMP

SET AL TO 070707

CLEAR WITH 707070

ERROR JUMP

SET AL TO 252525

CLEAR WITH 525252

ERROR JUMP

SET AL TO 525252

05737 52 2150 4475  
 05740 63 5747 4476  
 05741 12 2166 4477  
 05742 52 2167 4500  
 05743 63 5747 4501  
 05744 12 2167 4502  
 05745 52 2166 4503

SLCL\*TPAT2

JPALNZ\*TR52

ENTAL\*TPAB1

SLCL\*TPAB1+1

JPALNZ\*TR52

ENTAL\*TPAB1+1

SLCL\*TPAB1

CLEAR WITH 252525

ERROR JUMP

SET AL TO 000001

CLEAR WITH 777776

ERROR JUMP

SET AL TO 777776

CLEAR WITH 000001



05746 61 5751  
05747 10 2146  
05750 76 1742  
05751 55 5711

4504  
4505  
4506  
4507  
4510  
4511  
4512

TR52

TS52

JPALZ\*TR52+2  
ENTAU\*TPAT1  
RJP\*TFDIS  
IJP\*TF52

PROG\*SCOTT\*\*30APL64

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
REMARK\*THE DIVIDE REMAINDER IN AU

EXIT CORRECT  
CORRECT TO AU  
ERROR DISPLAY  
EXIT

05752 00 0000  
05753 70 0065  
05754 44 2222  
05755 70 0060  
05756 44 2223  
05757 70 0065  
05760 44 2224

4513  
4514  
4515  
4516  
4517  
4520  
4521  
4522

TS52

REMARK\*THE DIVIDE QUOTIENT IN AL

0\*  
ENTALK\*65  
STRAL\*BUFF1  
ENTALK\*60  
STRAL\*BUFF2  
ENTALK\*65  
STRAL\*BUFF3

SKIP ON OVERFLOW  
SET TYPEOUT BUFFER  
TO CODES FOR 5052

05761 70 0062  
05762 44 2225  
05763 12 5772  
05764 44 2037  
05765 50 5200  
05766 12 2146  
05767 70 3777  
05770 10 2146

4523  
4524  
4525  
4526  
4527  
4530  
4531  
4532

ENTALK\*62  
STRAL\*BUFF4  
ENTAL\*TS522\*2  
STRAL\*TFX  
SKPOV\*0  
ENTAL\*TPAT1  
ENTALK\*3777  
ENTAU\*TPAT1

SET UP  
ERROR DISPLAY  
CLR OVER  
CLR AL  
SET AL TO 003777  
CLR AU

05771 26 2166  
05772 50 5200  
05773 34 5776  
05774 76 2040  
05775 55 5752  
05776 70 0000  
05777 10 2166  
06000 26 2166

4533  
4534  
4535  
4536  
4537  
4540  
4541  
4542

TS522

DIVA\*TPAB1  
SKPOV\*0  
JP\*LOK\*3  
RJP\*TSDIS  
IJP\*TS52  
ENTALK\*0  
ENTAU\*TPAB1  
DIVA\*TPAB1

DIV A BY 1  
CHECK NO SKIP  
CHECK OK  
ERROR DISPLAY  
ERROR EXIT  
CLR AL  
SET AU TO 000001  
DIV A BY 1

06001 50 5200  
06002 34 5774  
06003 55 5752

4543  
4544  
4545  
4546  
4547

TF53

SKPOV\*0  
JP\*TS522  
IJP\*TS52  
PROG\*CASEY\*\*30APL64

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

CHECK FOR SKIP  
ERROR JUMP  
EXIT

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		4550	REMARK*CORRECT PATTERN IN AU	
		4551	REMARK*INCORRECT PATTERN IN AL	
06004	00 0000	4552	Q*	SELECTIVE COMPLEMENT 53
06005	70 0065	4553	ENTALK*65	SET TYPEOUT BUFFER
06006	44 2222	4554	STRAL*BUFF1	TO CODES FOR 53
06007	70 0063	4555	ENTALK*63	
06010	44 2223	4556	STRAL*BUFF2	
06011	12 6014	4557	ENTAL*LOK+3	SET UP
06012	44 2037	4560	STRAL*TFX	ERROR DISPLAY
06013	12 2146	4561	ENTAL*TPAT1	CLR AL
06014	53 2144	4562	SLCP*TPAT	COMP WITH 777777
06015	02 2145	4563	CMAL*TPAT+1	IS AL CORRECT
06016	63 6047	4564	JPNOT*TR531	ERROR JUMP
06017	53 2146	4565	SLCP*TPAT1	COMP WITH 000000
06020	02 2145	4566	CMAL*TPAT+1	IS AL CORRECT
06021	63 6047	4567	JPNOT*TR531	ERROR JUMP
06022	12 2160	4570	ENTAL*TPAT6	SET AL TO 707070
06023	53 2162	4571	SLCP*TPAT7	COMP WITH 070707
06024	02 2144	4572	CMAL*TPAT	IS AL CORRECT
06025	63 6047	4573	JPNOT*TR531	ERROR JUMP
06026	12 2152	4574	ENTAL*TPAT3	SET AL TO 525252
06027	53 2150	4575	SLCP*TPAT2	COMP WITH 252525
06030	02 2144	4576	CMAL*TPAT	IS AL CORRECT
06031	63 6047	4577	JPNOT*TR531	ERROR JUMP
06032	12 2150	4600	ENTAL*TPAT2	SET AL TO 252525
06033	53 2152	4601	SLCP*TPAT3	COMP WITH 525252
06034	02 2144	4602	CMAL*TPAT	IS AL CORRECT
06035	63 6047	4603	JPNOT*TR531	ERROR JUMP
06036	53 2150	4604	SLCP*TPAT2	COMP WITH 252525
06037	02 2152	4605	CMAL*TPAT3	IS AL CORRECT
06040	63 6045	4606	JPNOT*TR532	ERROR JUMP
06041	12 2146	4607	ENTAL*TPAT1	CLR AL
06042	53 2152	4610	SLCP*TPAT3	COMP WITH 525252
06043	02 2153	4611	CMAL*TPAT3+1	IS AL CORRECT
06044	61 6051	4612	JPEQ*TR531+2	CORRECT EXIT
06045	10 2153	4613	ENTAU*TPAT3+1	CORRECT TO AU

TF53

TR532

06046	34	6050	4614	JP*TR531+1	DISPLAY
06047	10	2144	4615	ENTAU*TPAT	CORRECT TO AU
06050	76	1742	4616	RJP*TFDIS	ERROR DISPLAY
06051	55	6004	4617	IJP*TF53	EXIT
			4620	PROG*SCOTT*30APL64	
			4621	REMARK*ERROR DISPLAY; FUNCT. CODE IN C REG.	
			4622	REMARK*THE DIVIDE REMAINDER IN AU	
			4623	REMARK*THE DIVIDE QUOTIENT IN AL	
06052	00	0000	4624	0*	SKIP OVERFLOW 5053
06053	70	0065	4625	ENTALK*65	SET TYPEOUT BUFFER
06054	44	2222	4626	STRAL*BUFF1	TO CODES FOR 5053
06055	70	0060	4627	ENTALK*60	
06056	44	2223	4630	STRAL*BUFF2	
06057	70	0065	4631	ENTALK*65	
06060	44	2224	4632	STRAL*BUFF3	
06061	70	0063	4633	ENTALK*63	
06062	44	2225	4634	STRAL*BUFF4	
06063	12	6072	4635	ENTAL*TS532+2	SET UP
06064	44	2037	4636	STRAL*TFX	ERROR DISPLAY
06065	50	5200	4637	SKPOV*0	CLR OVER
06066	10	2146	4640	ENTAU*TPAT1	CLR AU
06067	70	0000	4641	ENTALK*0	CLR AL
06070	10	2166	4642	ENTAU*TPAB1	SET AU TO 000001
06071	26	2166	4643	DIVA*TPAB1	DIV A BY 1
06072	50	5300	4644	SKPNOV*0	CHECK FOR NO SKIP
06073	34	6076	4645	JP*LOK+3	CHECK OK
06074	76	2040	4646	RJP*TSDIS	ERROR DISPLAY
06075	55	6052	4647	IJP*TS53	ERROR EXIT
06076	70	3777	4650	ENTALK*3777	SET AL TO 003777
06077	10	2146	4651	ENTAU*TPAT1	SET AU TO 000000
06100	26	2166	4652	DIVA*TPAB1	DIV A BY 1
06101	50	5300	4653	SKPNOV*0	CHECK FOR SKIP
06102	34	6074	4654	JP*TS532	ERROR JUMP
06103	55	6052	4655	IJP*TS53	EXIT
			4656	PROG*SCOTT*30APL64	
			4657	REMARK*ERROR DISPLAY; FUNCT. CODE IN C REG.	

06104	00	0000	4660
06105	70	0065	4661
06106	44	2222	4662
			4663
			4664
06107	70	0060	4665
06110	44	2223	4666
06111	70	0065	4667
06112	44	2224	4670
06113	70	0064	4671
06114	44	2225	4672
06115	12	6122	4673
06116	44	2037	4674
06117	36	0000	4675
06120	10	2144	4676
06121	70	0003	4677
06122	50	5400	4700
06123	34	6126	4701
06124	76	2040	4702
06125	55	6104	4703
06126	50	4601	4704
06127	56	2201	4705
06130	34	6122	4706
06131	67	6135	4707
06132	70	7774	4710
06133	36	0000	4711
06134	34	6122	4712
06135	36	0000	4713
06136	70	0001	4714
06137	50	5400	4715
06140	34	6124	4716
06141	50	4601	4717
06142	56	2201	4720
06143	34	6137	4721
06144	67	6125	4722
06145	36	0000	4723
06146	70	7776	4724

TS554

TS545

TS544

REMARK\*PARITY PATTERN IN AU  
REMARK\*PARITY PATTERN IN AL  
0\*  
ENTALK\*65  
STRAL\*BUFF1

ENTALK\*60  
STRAL\*BUFF2  
ENTALK\*65  
STRAL\*BUFF3  
ENTALK\*64  
STRAL\*BUFF4  
ENTAL\*TS545-2  
STRAL\*TFX

ENTBK\*0  
ENTAU\*TPAT  
ENTALK\*0003  
SKPODD\*0  
JP\*LOK+3  
RJP\*TSDIS  
IJP\*TS54  
LSHAL\*1

BSK\*TPAB6+1  
JP\*TS545-2  
JPALNG\*LOK+4  
ENTALK\*7774  
ENTBK\*0  
JP\*TS545-2  
ENTBK\*0  
ENTALK\*1

SKPODD\*0  
JP\*TS545  
LSHAL\*1  
BSK\*TPAB6+1  
JP\*TS544  
JPALNG\*TS545+1  
ENTBK\*0  
ENTALK\*7776

SKIP ON ODD PARITY 5054  
SET TIMEOUT BUFFER  
TO CODES FOR 5054

SET UP  
ERROR DISPLAY

CLR B  
SET AU TO 777777  
SET AL TO 000003  
CHECK NO SKIP  
CHECK OK  
ERROR DISPLAY  
ERROR EXIT  
SHIFT PATTERN

ALL PATTERNS CHECKED  
NO CONTINUE  
TWO PASS CHECK  
SET AL TO 777774  
SET B TO 0  
GO TO CHECK  
CLR B  
SET AL TO 1

CHECK FOR SKIP  
ERROR JUMP  
SHIFT PATTERN  
ALL PATTERNS CHECKED  
NO CONTINUE  
EXIT  
CLR B  
SET AL TO 777776

06147	34	6137	4725		JP*TS544	CONTINUE CHECK
			4726	TF55	PROG*CASEY*30APL64	
			4727		REMARK*ERROR DISPLAY, FUNCT. CODE IN CREG.	
			4730		REMARK*NO DISPLAY IN AU OR AL	
06150	00	0000	4731	TF55	0*	INDIRECT JUMP 55
06151	70	0065	4732		ENTALK*65	SET TYPEOUT BUFFER
						TO CODES FOR 55
06152	44	2222	4733		STRAL*BUFF1	
06153	70	0065	4734		ENTALK*65	
06154	44	2223	4735		STRAL*BUFF2	
06155	12	6160	4736		ENTAL*LOK+3	SET UP
06156	44	2037	4737		STRAL*TFX	ERROR DISPLAY
06157	12	2146	4740		ENTAL*TPAT1	CLR AL
06160	55	6161	4741		IJP*LOK+1	TEST JUMP
06161	00	6164	4742		0*TF551+1	ADDRESS
06162	34	6173	4743		JP*TR55	ERROR JUMP
06163	00	6167	4744	TF551	0*TF552+1	ADDRESS
06164	55	6163	4745		IJP*TF551	TEST JUMP
06165	34	6173	4746		JP*TR55	ERROR JUMP
06166	00	6172	4747	TF552	0*TF553+1	ADDRESS
06167	55	6166	4750		IJP*TF552	TEST JUMP
06170	34	6173	4751		JP*TR55	ERROR JUMP
06171	00	6174	4752	TF553	0*TR55+1	ADDRESS
06172	55	6171	4753		IJP*TF553	TEST JUMP
06173	76	1742	4754	TR55	RJP*TFDIS	ERROR DISPLAY
06174	55	6150	4755		IJP*TF55	EXIT
			4756	TS55	PROG*SCOTT*30APL64	
			4757		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			4760		REMARK*PARITY PATTERN IN AU	
			4761		REMARK*PARITY PATTERN IN AL	
06175	00	0000	4762	TS55	0*	SKIP ON EVEN PARITY
06176	70	0065	4763		ENTALK*65	SET TYPEOUT BUFFER
06177	44	2222	4764		STRAL*BUFF1	TO CODES FOR 5055
06200	70	0060	4765		ENTALK*60	
06201	44	2223	4766		STRAL*BUFF2	
06202	70	0065	4767		ENTALK*65	
06203	44	2224	4770		STRAL*BUFF3	

06204	70	0065	4771	ENTALK*65	SET UP
06205	44	2225	4772	STRAL*BUFF4	ERROR DISPLAY
06206	12	6213	4773	ENTAL*TS551	SET B TO 0
06207	44	2037	4774	STRAL*TFX	SET AU TO 777777
06210	36	0000	4775	ENTBK*0	SET AL TO 000001
06211	10	2144	4776	ENTAU*TPAT	CHECK NO SKIP
06212	70	0001	4777	ENTALK*1	
06213	50	5500	5000	SKPEVN*0	
			TS551		
06214	34	6217	5001	JP*LOK*3	CHECK OK
06215	76	2040	5002	RJP*TSDIS	ERROR DISPLAY
06216	55	6175	5003	IJP*TS55	ERROR EXIT
06217	50	4601	5004	LSHAL*1	SHIFT PATTERN
06220	56	2201	5005	BSK*TPAB6*1	ALL PATTERNS CHECKED
06221	34	6213	5006	JP*TS551	NO CONTINUE
06222	67	6226	5007	JPALNG*LOK*4	TWO PASS CHECK
06223	36	0000	5010	ENTBK*0	CLR B
			TS552		
06224	70	7776	5011	ENTALK*7776	SET AL TO 777776
06225	34	6213	5012	JP*TS551	CONTINUE CHECK
06226	36	0000	5013	ENTBK*0	CLR B
06227	70	0003	5014	ENTALK*0003	SET AL TO 3
06230	50	5500	5015	SKPEVN*0	CHECK FOR SKIP
06231	34	6215	5016	JP*TS552	ERROR JUMP
06232	50	4601	5017	LSHAL*1	SHIFT PATTERN
06233	56	2201	5020	BSK*TPAB6*1	ALL PATTERNS CHECKED
			TS556		
06234	34	6230	5021	JP*TS556	NO CONTINUE
06235	67	6216	5022	JPALNG*TS552*1	EXIT
06236	36	0000	5023	ENTBK*0	CLR B
06237	70	7774	5024	ENTALK*7774	SET AL TO 777774
06240	34	6230	5025	JP*TS556	CONTINUE CHECK
			5026	PROG*CASEY*30APL64	
			5027	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			5030	REMARK*CORRECT PATTERN IN AU	
			TF56		
			5031	REMARK*INCORRECT PATTERN IN AL	
06241	00	0000	5032	0*	B SKIP 56
06242	70	0065	5033	ENTALK*65	SET TYPEOUT BUFFER
06243	44	2222	5034	STRAL*BUFF1	TO CODES FOR 56
			TF56		

06244 70 0066 5035  
06245 44 2223 5036

06246 12 6251 5037  
06247 44 2037 5040  
06250 36 0000 5041  
06251 56 2156 5042  
06252 34 6251 5043  
06253 42 2275 5044  
06254 12 2275 5045  
06255 10 2156 5046

06256 02 2157 5047  
06257 63 6310 5050  
06260 36 0000 5051  
06261 56 2226 5052  
06262 34 6261 5053  
06263 42 2275 5054  
06264 12 2275 5055  
06265 10 2226 5056

06266 02 2226 5057  
06267 63 6310 5060  
06270 36 0000 5061  
06271 56 2171 5062  
06272 34 6271 5063  
06273 42 2275 5064  
06274 12 2275 5065  
06275 10 2171 5066

06276 02 2171 5067  
06277 63 6310 5070  
06300 36 0000 5071  
06301 56 2242 5072  
06302 34 6301 5073  
06303 42 2275 5074  
06304 12 2275 5075  
06305 10 2242 5076

06306 02 2242 5077  
06307 61 6311 5100

ENTALK\*66  
STRAL\*BUFF2

ENTAL\*LOK\*3  
STRAL\*TFX  
ENTBK\*0  
BSK\*TPAT5  
JP\*LOK-1  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAT5

CMAL\*TPAT5\*1  
JPNOT\*TF560  
ENTBK\*0  
BSK\*TPAK  
JP\*LOK-1  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAK

CMAL\*TPAK  
JPNOT\*TF560  
ENTBK\*0  
BSK\*TPAB2+1  
JP\*LOK-1  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAB2+1

CMAL\*TPAB2+1  
JPNOT\*TF560  
ENTBK\*0  
BSK\*TPAS3  
JP\*LOK-1  
STRB\*SAVEB  
ENTAL\*SAVEB  
ENTAU\*TPAS3

CMAL\*TPAS3  
JPEQ\*TF560+1

SET UP  
ERROR DISPLAY  
CLR B  
SKIP ON 7777  
CONTINUE SKIP  
SET AL EQUAL B

CORRECT TO AU

IS AL CORRECT  
ERROR JUMP  
CLR B  
SKIP ON 2020  
CONTINUE SKIP  
SET AL EQUALB

CORRECT TO AU

IS AL CORRECT  
ERROR JUMP  
CLR B  
SKIP ON 505  
CONTINUE SKIP  
SET AL EQUAL B

CORRECT TO AU

IS AL CORRECT  
ERROR JUMP  
CLR B  
SKIP ON 2  
CONTINUE SKIP  
SET AL EQUAL B

CORRECT TO AU

IS AL CORRECT  
YES EXIT

06310	76	1742	5101	TF560	RJP*TFDIS	ERROR DISPLAY
06311	55	6241	5102		IJP*TF56	EXIT
			5103	TF57	PROG*CASEY*30APL64	
			5104		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			5105		REMARK*CORRECT PATTERN IN AU	
			5106		REMARK*INCORRECT PATTERN IN AL	
06312	00	0000	5107	TF57	0*	INDEX SKIP 57
06313	70	0065	5110		ENTALK*65	SET TYPEOUT BUFFER
06314	44	2222	5111		STRAL*BUFF1	TO CODES FOR 57
06315	70	0067	5112		ENTALK*67	
06316	44	2223	5113		STRAL*BUFF2	
06317	10	2146	5114		ENTAU*TPAT1	CORRECT TO AU
06320	12	2156	5115		ENTAL*TPAT5	SET AL TO 007777
06321	44	2253	5116		STRAL*TPAR	SET INDEX
06322	57	2253	5117	TF570	ISK*TPAR	SKIP ON INDEX
06323	34	6322	5120		JP*LOK-1	CONTINUE SKIP
06324	12	2253	5121		ENTAL*TPAR	SET AL EQUAL FINAL
06325	63	6354	5122		JPALNZ*TR57	ERROR JUMP
06326	12	2234	5123		ENTAL*TPAK6	SET AL TO 2525
06327	44	2253	5124		STRAL*TPAR	SET INDEX
06330	57	2253	5125		ISK*TPAR	SKIP ON INDEX
06331	34	6330	5126		JP*LOK-1	CONTINUE SKIP
06332	12	2253	5127		ENTAL*TPAR	SET AL EQUAL FINAL
06333	63	6354	5130		JPALNZ*TR57	ERROR JUMP
06334	12	2240	5131		ENTAL*TPAS1	SET AL TO 17
06335	44	2253	5132		STRAL*TPAR	SET INDEX
06336	57	2253	5133		ISK*TPAR	SKIP ON INDEX
06337	34	6336	5134		JP*LOK-1	CONTINUE SKIP
06340	12	2253	5135		ENTAL*TPAR	SET AL EQUAL FINAL
06341	63	6354	5136		JPALNZ*TR57	ERROR JUMP
06342	12	2144	5137		ENTAL*TPAT	SET AL TO 777777
06343	44	2253	5140		STRAL*TPAR	SET INDEX
06344	57	2253	5141		ISK*TPAR	SKIP ON INDEX
06345	34	6344	5142		JP*LOK-1	CONTINUE SKIP
06346	12	2253	5143		ENTAL*TPAR	SET AL EQUAL FINAL
06347	63	6354	5144		JPALNZ*TR57	ERROR JUMP



06350	44	2253	5145	STRAL*TPAR	SET INDEX
06351	57	2253	5146	ISK*TPAR	SKIP ON INDEX
06352	34	6354	5147	JP*TR57	ERROR JUMP
06353	55	6312	5150	IJP*TF57	EXIT
06354	12	6322	5151	ENTAL*TF570	SET UP
06355	44	2037	5152	STRAL*TFX	ERROR DISPLAY
06356	76	1742	5153	RJP*TFDIS	DISPLAY
06357	55	6312	5154	IJP*TF57	ERROR EXIT
			5155	TF60	PROG*SCOTT*30APL64
			5156		REMARK*ERROR DISPLAY FUNC CODE IN C REG
			5157		REMARK*SHIFTED PATTERN IN AU
			5160		REMARK*NO DISPLAY IN AL
06360	00	0000	5161	TF60	0*
06361	70	0066	5162		JUMP AU ZERO 60
					SET TPEOUT BUFFER
06362	44	2222	5163	STRAL*BUFF1	TO CODES FOR 60
06363	70	0060	5164	ENTALK*60	
06364	12	6370	5165	ENTAL*LOK*4	SET UP
06365	44	2037	5166	STRAL*TFX	ERROR DISPLAY
06366	76	2276	5167	RJP*TFSH1	SET UP FOR SHIFT
06367	10	2146	5170	ENTAU*TPAT1	CLR AU
06370	60	6373	5171	JPAUZ*LOK*3	TEST FOR JUMP
06371	76	1742	5172	TF602	ERROR DISPLAY
06372	55	6360	5173	IJP*TF60	ERROR EXIT
06373	10	2166	5174	ENTAU*TPAB1	SET AU TO 000001
06374	60	6371	5175	TF604	TEST NO JUMP
06375	50	4501	5176		SHIFT PATTERN
06376	57	2306	5177	LSHAU*1	ALL PATTERNS CHECKED
06377	34	6374	5200	ISK*TSK	NO CONTINUE
06400	55	6360	5201	JP*TF604	EXIT
			5202	TS60	
			5203		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.
06401	44	2223	5204		STRAL*BUFF2
			5205		REMARK*CORRECT PATTERN IN AU
			5206		REMARK*INCORRECT PATTERN IN AL
06402	00	0000	5207	TS60	0*
06403	70	0065	5210		ROUND A 5060
06404	44	2222	5211		SET TYPEOUT BUFFER
					TO CODES FOR 5060



06405 70 0060 5212  
 06406 44 2223 5213  
 06407 70 0066 5214  
 06410 44 2224 5215  
 06411 70 0060 5216  
 06412 44 2225 5217  
 06413 12 6417 5220

06414 44 2037 5221  
 06415 12 2144 5222  
 06416 10 2261 5223  
 06417 50 6000 5224  
 06420 02 2170 5225  
 06421 61 6425 5226  
 06422 10 2170 5227  
 06423 76 2040 5230

06424 55 6402 5231  
 06425 10 2144 5232  
 06426 50 6000 5233  
 06427 02 2146 5234  
 06430 61 6433 5235  
 06431 10 2146 5236  
 06432 34 6423 5237  
 06433 10 2261 5240

06434 50 6000 5241  
 06435 02 2261 5242  
 06436 61 6424 5243  
 06437 10 2261 5244  
 06440 34 6423 5245

06441 00 0000 5251  
 06442 70 0066 5252  
 06443 44 2222 5254  
 06444 70 0061 5255

ENTALK\*60  
 STRAL\*BUFF2  
 ENTALK\*66  
 STRAL\*BUFF3  
 ENTALK\*60  
 STRAL\*BUFF4  
 ENTAL\*LOK+4

STRAL\*TFX  
 ENTAL\*TPAT  
 ENTAU\*TC03  
 RND\*0  
 CMAL\*TPAB2  
 JPEQ\*LOK+4  
 ENTAU\*TPAB2  
 RUP\*TSDIS

IJP\*TS60  
 ENTAU\*TPAT  
 RND\*0  
 CMAL\*TPAT1  
 JPEQ\*LOK+3  
 ENTAU\*TPAT1  
 JP\*TS602  
 ENTAU\*TC03

RND\*0  
 CMAL\*TC03  
 JPEQ\*TS602+1  
 ENTAU\*TC03  
 JP\*TS602

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*NO DISPLAY IN AU

REMARK\*SHIFTED PATTERN IN AL  
 0\*  
 ENTALK\*66  
 STRAL\*BUFF1  
 ENTALK\*61

SET UP

ERROR DISPLAY  
 SET AL TO 777777  
 SET AU TO 377777  
 TEST ROUND  
 IS AL CORRECT  
 YES CONTINUE  
 ORRECT TO AU  
 ERROR DISPLAY

ERROR EXIT  
 SET AU TO 777777  
 TEST ROUND  
 IS AL CORRECT  
 YES CONTINUE  
 CORRECT TO AU  
 ERROR JUMP  
 SET AU TO 377777

TEST ROUND  
 IS AL CORRECT  
 EXIT  
 CORRECT TO AU  
 ERROR JUMP

JUMP AL ZERO 61  
 SET TYPEOUT BUFFER  
 TO CODES FOR 61

TS602

TF61

TF61

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06445	44 2223	5256	STRAL*BUFF2	
06446	12 6452	5257	ENTAL*LOK+4	SET UP
06447	44 2037	5260	STRAL*TFX	ERROR DISPLAY
06450	76 2276	5261	RJP*TFSH1	SET UP SHIFT
06451	70 0000	5262	ENTALK*0	CLR AL
06452	61 6455	5263	JPALZ*LOK+3	TEST FOR JUMP
06453	76 1742	5264	RJP*TFDIS	ERROR DISPLAY
06454	55 6441	5265	IJP*TF61	ERROR EXIT
06455	70 0001	5266	ENTALK*1	SET AL TO 1
06456	61 6453	5267	JPALZ*TF612	TEST NO JUMP
06457	50 4601	5270	LSHAL*1	SHIFT PATTERN
06460	57 2306	5271	ISK*TSH	ALL PATTERNS CHECKED
06461	34 6456	5272	JP*TF614	NO CONTINUE
06462	55 6441	5273	IJP*TF61	EXIT
		5274	PROG*SCOTT*30APL64	
		5275	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
		5276	REMARK*CORRECT PATTERN IN AU	
		5277	REMARK*INCORRECT PATTERN IN AL	
06463	00 0000	5300	0*	COMPLEMENT AL 5061
06464	70 0065	5301	ENTALK*65	SET TIMEOUT BUFFER
06465	44 2222	5302	STRAL*BUFF1	TO CODES FOR 5061
06466	70 0060	5303	ENTALK*60	
06467	44 2223	5304	STRAL*BUFF2	
06470	70 0066	5305	ENTALK*66	
06471	44 2224	5306	STRAL*BUFF3	
06472	70 0061	5307	ENTALK*61	
06473	44 2225	5310	STRAL*BUFF4	
06474	12 6477	5311	ENTAL*LOK+3	SET UP
06475	44 2037	5312	STRAL*TFX	ERROR DISPLAY
06476	70 7777	5313	ENTALK*7777	SET AL TO 77777
06477	50 6100	5314	CPAL*0	TEST FUNC
06500	61 6504	5315	JPALZ*LOK+4	CHECK OK
06501	10 2146	5316	ENTAU*TPAT1	CLR AU
06502	76 2040	5317	RJP*TSDIS	ERROR DISPLAY
06503	55 6463	5320	IJP*TS61	ERROR EXIT
06504	71 0001	5321	ADDALK*0001	AL + 1

06505 50 6100 5322  
 06506 02 2167 5323  
 06507 61 6503 5324

06510 10 2167 5325  
 06511 34 6502 5326

06512 00 0000 5327  
 06513 70 0066 5330

06514 44 2222 5331  
 06515 70 0061 5332  
 06516 44 2223 5333  
 06517 12 6523 5334  
 06520 44 2037 5335  
 06521 12 2146 5336  
 06522 02 2147 5337  
 06523 61 6526 5340

06524 76 1742 5341  
 06525 55 6512 5342  
 06526 02 2150 5343  
 06527 61 6524 5344  
 06530 55 6512 5351

06531 00 0000 5352  
 06532 70 0066 5353  
 06533 44 2222 5354  
 06534 70 0062 5355  
 06535 44 2223 5356  
 06536 12 6542 5357  
 06537 44 2037 5360

06540 76 2276 5361

CPAL\*0  
 CMAL\*TPAB1+1  
 JPEQ\*TS612+1

TEST FUNC  
 IS AL CORRECT  
 EXIT

TC61 ENTAL\*TPAB1+1  
 JP\*TS612  
 PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*NO DISPLAY IN AU  
 REMARK\*CORRECT PATTERN IN AL  
 0\*  
 ENTALK\*66

CORRECT TO AU  
 ERROR JUMP

JUMP EQUAL 61  
 SET TIMEOUT BUFFER

STRAL\*BUFF1  
 ENTALK\*61  
 STRAL\*BUFF2  
 ENTAL\*LOK+4  
 STRAL\*TFX  
 ENTAL\*TPAT1+1  
 CMAL\*TPAT1+1  
 JPEQ\*LOK+3

TO CODES FOR 61

SET UP  
 ERROR DISPLAY  
 CLR AL  
 SET EQ DESIG  
 TEST FOR JUMP

TC612 RJP\*TFDIS  
 IJP\*TC61  
 CMAL\*TPAT2  
 JPEQ\*TC612  
 IJP\*TC61  
 TF62 PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*SHIFTED PATTERN IN AU

ERROR DISPLAY  
 ERROR EXIT  
 CLR EQ DESIG  
 TEST NO JUMP  
 EXIT

TF62 REMARK\*NO DISPLAY IN AL  
 0\*  
 ENTALK\*66  
 STRAL\*BUFF1  
 ENTALK\*62  
 STRAL\*BUFF2  
 ENTAL\*LOK+4  
 STRAL\*TFX  
 RJP\*TFSH1

JUMP AU NOT ZERO 62  
 SET TIMEOUT BUFFER  
 TO CODES FOR 62

SET UP  
 ERROR DISPLAY

SET UP SHIFT

06541 10 2146 5366  
 06542 62 6544 5367  
 06543 34 6546 5370  
 06544 76 1742 5371  
 06545 55 6531 5372

TF622

ENTAU\*TPAT1  
 JPAUNZ\*TF622  
 JP\*LOK+3  
 RJP\*TFDIS  
 IJP\*TF62

CLR AU  
 TEST NO JUMP  
 CHECK OK  
 ERROR DISPLAY  
 ERROR EXIT

06546 10 2166 5373  
 06547 62 6551 5374  
 06550 34 6544 5375  
 06551 50 4501 5376  
 06552 57 2306 5377  
 06553 34 6547 5400  
 06554 55 6531 5401  
 5402

TF624

TS62

ENTAU\*TPAB1  
 JPAUNZ\*LOK+2  
 JP\*TF622  
 LSHAU\*1  
 ISK\*TSK  
 JP\*TF624  
 IJP\*TF62  
 PROG\*SCOTT\*30APL64

SET AU TO 000001  
 TEST FOR JUMP  
 ERROR JUMP  
 SHIFT PATTERN  
 ALL PATTERNS CHECKED  
 NO CONTINUE  
 EXIT

06555 00 0000 5403  
 06556 70 0065 5404  
 06557 44 2222 5405  
 06560 70 0060 5406  
 06561 44 2223 5407  
 5410  
 5411  
 5412

TS62

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*INCORRECT PATTERN IN AU  
 REMARK\*CORRECT PATTERN IN AL  
 0\*  
 ENTALK\*65  
 STRAL\*BUFF1  
 ENTALK\*60  
 STRAL\*BUFF2

COMPLEMENT AU 5062  
 SET TYPEOUT BUFFER  
 TO CODES FOR 5062

06562 70 0066 5413  
 06563 44 2224 5414  
 06564 70 0062 5415  
 06565 44 2225 5416  
 06566 12 6571 5417  
 06567 44 2037 5420  
 06570 10 2144 5421  
 06571 50 6200 5422

ENTALK\*66  
 STRAL\*BUFF3  
 ENTALK\*62  
 STRAL\*BUFF4  
 ENTAL\*LOK+3  
 STRAL\*TFX  
 ENTAU\*TPAT  
 CPAU\*0

SET UP  
 ERROR DISPLAY  
 SET AU TO 777777  
 TEST FUNC

06572 60 6576 5423  
 06573 70 0000 5424  
 06574 76 2040 5425  
 06575 55 6555 5426  
 06576 10 2166 5427  
 06577 50 6200 5430  
 06600 70 7776 5431  
 06601 06 2144 5432

TS622

JPAUZ\*LOK+4  
 ENTALK\*0  
 RJP\*TSDIS  
 IJP\*TS62  
 ENTAU\*TPAB1  
 CPAU\*0  
 ENTALK\*7776  
 CMSK\*TPAT

CHECK OK  
 CORRECT TO AL  
 ERROR DISPLAY  
 ERROR EXIT  
 SET AUT TO000001  
 TEST FUNC  
 CORRECT TO AL  
 IS AU CORRECT

06602	63	6574	5433	JPNOT*TS622	ERROR JUMP
06603	55	6555	5434	IJP*TS62	EXIT
			5435	TF63	PROG*SCOTT*30APL64
			5436		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.
			5437		REMARK*NO DISPLAY IN AU
			5440		REMARK*SHIFTED PATTERN IN AL
06604	00	0000	5441	TF63	0*
06605	70	0066	5442		JUMP AL NOT ZERO 63
06606	44	2222	5443		SET TYPEOUT BUFFER
06607	70	0063	5444		TO CODES FOR 63
06610	44	2223	5445		
06611	12	6615	5446		SET UP
06612	44	2037	5447		ERROR DISPLAY
06613	76	2276	5450		SET UP SHIFT
06614	70	0000	5451		CLR AL
06615	63	6617	5452		TEST NO JUMP
06616	34	6621	5453		CHECK OK
06617	76	1742	5454	TF632	ERROR DISPLAY
06620	55	6604	5455		ERROR EXIT
06621	70	0001	5456		SET AL TO 000001
06622	63	6624	5457	TF634	TEST FOR JUMP
06623	34	6617	5460		ERROR JUMP
06624	50	4601	5461		SHIFT PATTERN
06625	57	2306	5462		ALL PATTERNS CHECKED
06626	34	6622	5463		NO CONTINUE
06627	55	6604	5464		EXIT
			5465	TS63	PROG*SCOTT*30APL64
			5466		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.
			5467		REMARK*THE PATTERNS IN AU AND AL
			5470		REMARK*SHOULD BE EQUAL
			5471		SETADR*5026
06630	00	0000	5472	TS63	0*
06631	70	0065	5473		COMPLEMENT A
06632	44	2222	5474		SET TYPEOUT BUFFER
06633	70	0060	5475		TO CODES FOR 5063
06634	44	2223	5476		

06635 70 0066 5477  
 06636 44 2224 5500  
 06637 70 0063 5501  
 06640 44 2225 5502  
 06641 12 6645 5503  
 06642 44 2037 5504  
 06643 12 2150 5505  
 06644 10 2150 5506

ENTALK\*66  
 STRAL\*BUFF3  
 ENTALK\*63  
 STRAL\*BUFF4  
 ENTAL\*LOK+4  
 STRAL\*TFX  
 ENTAL\*TPAT2  
 ENTAU\*TPAT2

SET UP  
 ERROR DISPLAY  
 SET AL TO 252525  
 SET AU TO 252525

06645 50 6300 5507  
 06646 02 2152 5510  
 06647 61 6652 5511  
 06650 76 2040 5512  
 06651 55 6630 5513  
 06652 06 2144 5514  
 06653 63 6650 5515  
 06654 50 6300 5516

TS632

CPA\*0  
 CMAL\*TPAT3  
 JPEQ\*LOK+3  
 RJP\*TS015  
 IJP\*TS63  
 CMSK\*TPAT  
 JPNOT\*TS632  
 CPA\*0

TEST FUNC  
 IS AL CORRECT  
 YES CONTINUE  
 ERROR DISPLAY  
 ERROR EXIT  
 IS AU CORRECT  
 ERROR JUMP  
 TEST FUNC

06655 02 2150 5517  
 06656 63 6650 5520  
 06657 06 2144 5521  
 06660 63 6650 5522  
 06661 55 6630 5523

TC63

CMAL\*TPAT2  
 JPNOT\*TS632  
 CMSK\*TPAT  
 JPNOT\*TS632  
 IJP\*TS63

IS AL CORRECT  
 ERROR JUMP  
 IS AU CORRECT  
 ERROR JUMP  
 EXIT

5524  
 5525  
 5526

PROG\*SCOTT\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*NO DISPLAY IN AU

06662 00 0000 5527  
 06663 70 0066 5530  
 06664 44 2222 5531  
 06665 70 0063 5532  
 06666 44 2223 5533  
 06667 12 6673 5534  
 06670 44 2037 5535

TC63

REMARK\*CORRECT PATTERN IN AL  
 0\*  
 ENTALK\*66  
 STRAL\*BUFF1  
 ENTALK\*63  
 STRAL\*BUFF2  
 ENTAL\*LOK+4  
 STRAL\*TFX

JUMP NOT EQUAL 63  
 SET TYPEOUT BUFFER  
 TO CODES FOR 63

06671 12 2166 5537  
 06672 02 2146 5540  
 06673 63 6676 5541  
 06674 76 1742 5542

TC632

ENTAL\*TPAB1  
 CMAL\*TPAT1  
 JPNOT\*LOK+3  
 RJP\*TFDIS

SET UP  
 ERROR DISPLAY

SET AL TO 000001  
 SET UNEG DESIG  
 TEST FOR JUMP  
 ERROR DISPLAY

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06675	55	6662	5543	IJP*TC63	ERROR EXIT
06676	02	2166	5544	CMAL*TPAB1	CLR UNEQ DESIG
06677	63	6674	5545	JPNOT*TC632	TEST NO JUMP
06700	55	6662	5546	IJP*TC63	EXIT
			5547	PROG*SCOTT*30APL64	
			5550	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			5551	REMARK*CORRECT PATTERN IN AU	
			5552	REMARK*NO DISPLAY IN AL	
06701	00	0000	5553	0*	JUMP AU POSITIVE
06702	70	0066	5554	ENTALK*66	SET TIMEOUT BUFFER
06703	44	2222	5555	STRAL*BUFF1	TO CODES FOR 64
06704	70	0064	5556	ENTALK*64	
06705	44	2223	5557	STRAL*BUFF2	
06706	12	6711	5560	ENTAL*LOK+3	SET UP
06707	44	2037	5561	STRAL*TFX	ERROR DISPLAY
06710	10	2172	5562	ENTAU*TPAB3	SET AU TO 312132
06711	64	6714	5563	JPAUP*LOK+3	TEST FOR JUMP
06712	76	1742	5564	RJP*TFDIS	ERROR DISPLAY
06713	55	6701	5565	IJP*TF64	ERROR EXIT
06714	10	2160	5566	ENTAU*TRAT6	SET AU TO 707070
06715	64	6712	5567	JPAUP*TF642	TEST NO JUMP
06716	55	6701	5570	IJP*TF64	EXIT
			5571	PROG*SCOTT*30APL64	
			5572	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			5573	REMARK*NO DISPLAY IN AU	
			5574	REMARK*CORRECT PATTERN IN AL	
06717	00	0000	5575	0*	JUMP AL POSITIVE 65
06720	70	0066	5576	ENTALK*66	SET TIMEOUT BUFFER
06721	44	2222	5577	STRAL*BUFF1	TO CODES FOR 65
06722	70	0065	5600	ENTALK*65	
06723	44	2223	5601	STRAL*BUFF2	
06724	70	6727	5602	ENTALK*LOK+3	SET UP
06725	44	2037	5603	STRAL*TFX	ERROR DISPLAY
06726	12	2172	5604	ENTAL*TPAB3	SET AL TO 312132
06727	65	6732	5605	JPALP*LOK+3	TEST FOR JUMP
06730	76	1742	5606	RJP*TFDIS	ERROR DISPLAY

06731 55 6717 5607  
 06732 12 2160 5610  
 06733 65 6730 5611  
 06734 55 6717 5612

5613

TC65

5614

5615

5616

06735 00 0000  
 06736 70 0066  
 06737 44 2222  
 06740 70 0065

5617

TC65

5620

5621

5622

06741 44 2223  
 06742 12 6747  
 06743 44 2037  
 06744 10 2144  
 06745 12 2150  
 06746 06 2152  
 06747 65 6752  
 06750 76 1742

5623

5624

5625

5626

5627

5630

5631

5632

TC652

06751 55 6735  
 06752 12 2146  
 06753 06 2166  
 06754 65 6750  
 06755 55 6735

5633

5634

5635

5636

5637

5640

5641

5642

TF66

06756 00 0000  
 06757 70 0066  
 06760 44 2222  
 06761 70 0066  
 06762 44 2223  
 06763 12 6766  
 06764 44 2037

5643

5644

5645

5646

5647

5650

5651

5652

TF66

IJP\*TF65  
 ENTAL\*TPAT6  
 JPALP\*TF652  
 IJP\*TF65

PROG\*SCOTT\*30APL64

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

REMARK\*COMPARE MASK IN AU

REMARK\*CORRECT PATTERN IN AL

0\*

ENTALK\*66

STRAL\*BUFF1

ENTALK\*65

STRAL\*BUFF2

ENTAL\*TC652-1

STRAL\*TFX

ENTAU\*TPAT

ENTAL\*TPAT2

CMSK\*TPAT3

JPMLEQ\*LOK+3

RJP\*TFDIS

IJP\*TC65

ENTAL\*TPAT1

CMSK\*TPAB1

JPMLEQ\*TC652

IJP\*TC65

PROG\*SCOTT\*30APL64

REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.

REMARK\*CORRECT PATTERN IN AU

REMARK\*NO DISPLAY IN AL

0\*

ENTALK\*66

STRAL\*BUFF1

ENTALK\*66

STRAL\*BUFF2

ENTAL\*LOK+3

STRAL\*TFX

ERROR EXIT

SET AL TO 707070

TEST NO JUMP

EXIT

JUMP Y LESS THAN OR EQUAL TO AL 65

SET TYPEOUT BUFFER

TO CODES FOR 65

SET UP

ERROR DISPLAY

SET AU TO 777777

SET AL TO 252525

SET LESS THAN DESIG

TEST FOR JUMP

ERROR DISPLAY

ERROR EXIT

CLR AL

CLR DESIG

TEST NO JUMP

EXIT

JUMP AU NEGATIVE 66

SET TYPEOUT BUFFER

TO CODES FOR 66

SET UP

ERROR DISPLAY

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B



06765	10	2160	5653		ENTAU*TPAT6	SET AU TO 707070
06766	66	6771	5654		JPAUNG*LOK+3	TEST FOR JUMP
06767	76	1742	5655	TF662	RJP*TFDIS	ERROR DISPLAY
06770	55	6756	5656		IJP*TF66	ERROR EXIT
06771	10	2172	5657		ENTAU*TPAB3	SET AU TO 312132
06772	66	6767	5660		JPAUNG*TF662	TEST NO JUMP
06773	55	6756	5661		IJP*TF66	EXIT
			5662	TF67	PROG*SCOTT*30APL64	
			5663		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			5664		REMARK*NO DISPLAY IN AU	
			5665		REMARK*CORRECT PATTERN IN AL	
06774	00	0000	5666	TF67	0*	JUMP AL NEGATIVE 67
06775	70	0066	5667		ENTALK*66	SET TYPEOUT BUFFER
06776	44	2222	5670		STRAL*BUFF1	TO CODES FOR 67
06777	70	0067	5671		ENTALK*67	
07000	44	2223	5672		STRAL*BUFF2	
07001	12	7004	5673		ENTAL*LOK+3	SET UP
07002	44	2037	5674		STRAL*TFX	ERROR DISPLAY
07003	12	2160	5675		ENTAL*TPAT6	SET AL TO 707070
07004	67	7007	5676		JPALNG*LOK+3	TEST FOR JUMP
07005	76	1742	5677	TF672	RJP*TFDIS	ERROR DISPLAY
07006	55	6774	5700		IJP*TF67	ERROR EXIT
07007	12	2172	5701		ENTAL*TPAB3	SET AL TO 312132
07010	67	7005	5702		JPALNG*TF672	TEST NO JUMP
07011	55	6774	5703		IJP*TF67	EXIT
			5704	TC67	PROG*SCOTT*30APL64	
			5705		REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			5706		REMARK*COMPARE MASK IN AU	
			5707		REMARK*CORRECT PATTERN IN AL	
07012	00	0000	5710	TC67	0*	JUMP Y GREATER THAN AL
07013	70	0066	5711		ENTALK*66	SET TYPEOUT BUFFER
07014	44	2222	5712		STRAL*BUFF1	TO CODES FOR 67
07015	70	0067	5713		ENTALK*67	
07016	44	2223	5714		STRAL*BUFF2	
07017	12	7024	5715		ENTAL*TC672-1	SET UP
07020	44	2037	5716		STRAL*TFX	ERROR DISPLAY
07021	10	2144	5717		ENTAU*TPAT	SET AU TO 777777

07022	12	2160	5720
07023	06	2162	5721
07024	67	7027	5722
07025	76	1742	5723
07026	55	7012	5724
07027	12	2166	5725
07030	06	2146	5726
07031	67	7025	5727
07032	55	7012	5730
07033	00	0000	5731
07034	70	0067	5732
07035	44	2222	5733
07036	70	0060	5734
07037	44	2223	5735
07040	10	7042	5736
07041	46	2037	5737
07042	70	7777	5738
07043	10	2144	5739
07044	02	2144	5740
07045	63	7101	5741
07046	70	0000	5742
07047	10	2146	5743
07050	63	7101	5744
07051	70	7776	5745
07052	10	2167	5746
07053	02	2167	5747
07054	63	7101	5748
07055	70	0001	5749
07056	10	2166	5750
07057	02	2166	5751
07060	63	7101	5752
07061	70	5252	5753

TC672

TF70

TF70

ENTALK\*TPAT6  
CMSK\*TPAT7  
JPMGR\*LOK+3  
RJP\*TFDIS  
IJP\*TC67  
ENTALK\*TPAB1  
CMSK\*TPAT1

JPMGR\*TC672  
IJP\*TC67

PRDG\*CASEY\*30APL64  
REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
REMARK\*CORRECT PATTERN IN AU  
REMARK\*INCORRECT PATTERN IN AL

0\*  
ENTALK\*67

STRAL\*BUFF1  
ENTALK\*60  
STRAL\*BUFF2  
ENTALK\*LOK+2  
STRAU\*TFX  
ENTALK\*7777  
ENTALK\*TPAT  
CMAL\*TPAT

JPNOT\*TF700  
ENTALK\*0  
ENTALK\*TPAT1  
JPALNZ\*TF700  
ENTALK\*7776  
ENTALK\*TPAB1+1  
CMAL\*TPAB1+1  
JPNOT\*TF700

ENTALK\*0001  
ENTALK\*TPAB1  
CMAL\*TPAB1  
JPNOT\*TF700  
ENTALK\*5252

SET AL TO 707070  
SET DESIG  
TEST FOR JUMP  
ERROR DISPLAY  
ERROR EXIT  
SET AL TO 000001  
CLR DESIG

TEST NO JUMP  
EXIT

ENTER AL WITH CONSTANT  
SET TYPEOUT BUFFER

TO CODES FOR 70

SET UP  
ERROR DISPLAY  
SET AL TO 777777  
CORRECT TO AU  
IS AL CORRECT

IS AL CORRECT  
CLR AL  
CLR AU  
ERROR JUMP  
SET AL TO 777776  
CORRECT TO AU  
IS AL CORRECT  
ERROR JUMP

SET AL TO 000001  
CORRECT TO AU  
IS AL CORRECT  
ERROR JUMP  
SET AL TO 775252

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07062	10	2233	5764	ENTAU*TPAK5	CORRECT TO AU
07063	02	2233	5765	CMAL*TPAK5	IS AL CORRECT
07064	63	7101	5766	JPNOT*TF700	ERROR JUMP
07065	70	2525	5767	ENTALK*2525	SET AL TO 002525
07066	10	2234	5770	ENTAU*TPAK6	CORRECT TO AU
07067	02	2234	5771	CMAL*TPAK6	IS AL CORRECT
07070	63	7101	5772	JPNOT*TF700	ERROR JUMP
07071	70	7070	5773	ENTALK*7070	SET AL TO 777070
07072	10	2235	5774	ENTAU*TPAK7	CORRECT TO AU
07073	02	2235	5775	CMAL*TPAK7	IS AL CORRECT
07074	63	7101	5776	JPNOT*TF700	ERROR JUMP
07075	70	0707	5777	ENTALK*0707	SET AL TO 000707
07076	10	2236	6000	ENTAU*TPAK7+1	CORRECT TO AU
07077	02	2236	6001	CMAL*TPAK7+1	IS AL CORRECT
07100	61	7102	6002	JPEQ*TF700+1	YES EXIT
07101	76	1742	6003	RJP*TFDIS	ERROR DISPLAY
07102	55	7033	6004	IJP*TF70	EXIT
			6005	TF71	
			6006	PROG*SCOTT*30APL64	
			6007	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			6010	REMARK*CORRECT PATTERN IN AU	
			6011	REMARK*INCORRECT PATTERN IN AL	
07103	00	0000	6012	0*	ADD AL WITH CONSTANT 71
07104	70	0067	6013	ENTALK*67	SET TYPEOUT BUFFER
07105	44	2222	6014	STRAL*BUFF1	TO CODES FOR 71
07106	70	0061		ENTALK*61	
07107	44	2223	6015	STRAL*BUFF2	
07110	12	7113	6016	ENTAL*LOK+3	SET UP
07111	44	2037	6017	STRAL*TFX	ERROR DISPLAY
07112	70	0001	6020	ENTALK*0001	SET AL TO 000001
07113	71	0001	6021	ADDALK*0001	ADD AL PLUS 1
07114	10	2243	6022	ENTAU*TPAS4	CORRECT TO AU
07115	02	2243	6023	CMAL*TPAS4	IS AL CORRECT
07116	61	7121	6024	JPEQ*LOK+3	YES CONTINUE
07117	76	1742	6025	RJP*TFDIS	ERROR DISPLAY
07120	55	7103	6026	IJP*TF71	ERROR EXIT
07121	71	2220	6027	ADDALK*2220	ADD AL + 002220

07122 10 2230 6030  
 07123 02 2230 6031  
 07124 63 7117 6032

07125 71 1111 6033  
 07126 10 2232 6034  
 07127 02 2232 6035  
 07130 63 7117 6036  
 07131 71 4444 6037  
 07132 10 2146 6040  
 07133 63 7117 6041  
 07134 55 7103 6042

6043

6044

6045

6046

07135 00 0000 6047  
 07136 70 0065 6050  
 07137 44 2222 6051  
 07140 70 0060 6052

07141 44 2223 6053  
 07142 70 0067 6054  
 07143 44 2224 6055  
 07144 70 0063 6056  
 07145 44 2225 6057  
 07146 12 7150 6060  
 07147 44 2037 6061  
 07150 50 7320 6062

07151 75 2253 6063  
 07152 12 2253 6064  
 07153 10 2247 6065  
 07154 02 2247 6066  
 07155 63 7257 6067  
 07156 50 7327 6070  
 07157 75 2253 6071  
 07160 12 2253 6072

07161 10 2250 6073

ENTAU\*TPAK2  
 CMAL\*TPAK2  
 JPNQT\*TF712

ADDALK\*1111  
 ENTAU\*TPAK4  
 CMAL\*TPAK4  
 JPNQT\*TF712  
 ADDALK\*4444  
 ENTAU\*TPAT1  
 JPALNZ\*TF712  
 IJP\*TF71

TS73

TS73

PROG\*MUELLER\*2 NOV 64  
 REMARK\*ERROR DISPLAY: FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL

0\*0  
 ENTALK\*65  
 STRAL\*BUFF1  
 ENTALK\*60

STRAL\*BUFF2  
 ENTALK\*67  
 STRAL\*BUFF3  
 ENTALK\*63  
 STRAL\*BUFF4  
 ENTAL\*LOK\*2  
 STRAL\*TFX  
 ENTSR\*0020

STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS10  
 CMAL\*TPAS10  
 JPNQT\*TS730  
 ENTSR\*0027  
 STRSR\*TPAR  
 ENTAL\*TPAR

ENTAU\*TPAS11

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP

ADD AL +001111  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 ADD AL +774444  
 CORRECT TO AU  
 ERROR JUMP  
 EXIT

ENTSR SR 5053  
 SET TYPEOUT BUFFER  
 TO CODES FOR 5073

SET UP  
 ERROR DISPLAY  
 SET SR TO 20

SAVE SR  
 SET AL EQUAL TO SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 27  
 SAVE SR  
 SET AL EQUAL SR

CORRECT TO AU

07162 02 2250 6074  
 07163 63 7257 6075  
 07164 50 7335 6076  
 07165 75 2253 6077  
 07166 12 2253 6100

07167 10 2251 6101  
 07170 02 2251 6102  
 07171 63 7257 6103  
 07172 50 7332 6104  
 07173 75 2253 6105  
 07174 12 2253 6106  
 07175 10 2252 6107  
 07176 02 2252 6110

07177 63 7257 6111  
 07200 50 7317 6112  
 07201 75 2253 6113  
 07202 12 2253 6114  
 07203 10 2240 6115  
 07204 02 2240 6116  
 07205 63 7257 6117  
 07206 50 7304 6120

07207 75 2253 6121  
 07210 12 2253 6122  
 07211 10 2244 6123  
 07212 02 2244 6124  
 07213 63 7257 6125  
 07214 50 7312 6126  
 07215 75 2253 6127  
 07216 12 2253 6130

07217 10 2242 6131  
 07220 02 2242 6132  
 07221 63 7257 6133  
 07222 50 7301 6134  
 07223 75 2253 6135  
 07224 12 2253 6136  
 07225 10 2166 6137  
 07226 02 2166 6140

CMAL\*TPAS11  
 JPNOT\*TS730  
 ENTSR\*0035  
 STRSR\*TPAR  
 ENTAL\*TPAR

ENTAU\*TPAS12  
 CMAL\*TPAS12  
 JPNOT\*TS730  
 ENTSR\*0032  
 STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS13  
 CMAL\*TPAS13

JPNOT\*TS730  
 ENTSR\*0017  
 STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS1  
 CMAL\*TPAS1  
 JPNOT\*TS730  
 ENTSR\*0004

STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS5  
 CMAL\*TPAS5  
 JPNOT\*TS730  
 ENTSR\*0012  
 STRSR\*TPAR  
 ENTAL\*TPAR

ENTAU\*TPAS3  
 CMAL\*TPAS3  
 JPNOT\*TS730  
 ENTSR\*0001  
 STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAB1  
 CMAL\*TPAB1

IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 35  
 SAVE SR  
 SET AL EQUAL SR

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 32  
 SAVE SR  
 SET AL TO EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT

ERROR JUMP  
 SET SR TO 17  
 SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 15

SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 12  
 SAVE SR  
 SET AL EQUAL SR

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 1  
 SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT

07227 63 7257 6141  
 07230 50 7302 6142  
 07231 75 2253 6143  
 07232 12 2253 6144  
 07233 10 2243 6145  
 07234 02 2243 6146

07235 63 7257 6147  
 07236 50 7304 6150  
 07237 75 2253 6151  
 07240 12 2253 6152  
 07241 10 2244 6153  
 07242 02 2244 6154  
 07243 63 7257 6155  
 07244 50 7307 6156

07245 75 2253 6157  
 07246 12 2253 6160  
 07247 10 2245 6161  
 07250 02 2245 6162  
 07251 63 7257 6163  
 07252 50 7300 6164  
 07253 75 2253 6165  
 07254 12 2253 6166

07255 10 2146 6167  
 07256 61 7260 6170  
 07257 76 2040 6171  
 07260 55 7135 6172  
 6173  
 6174  
 6175  
 6176

07261 00 0000 6177  
 07262 70 0067 6200  
 07263 44 2222 6201  
 07264 70 0063 6202  
 07265 44 2223 6203  
 07266 12 7303 6204

TS730

TF73

TF73

JPNOT\*TS730  
 ENTSR\*0002  
 STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS4  
 CMAL\*TPAS4

JPNOT\*TS730  
 ENTSR\*0004  
 STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS5  
 CMAL\*TPAS5  
 JPNOT\*TS730  
 ENTSR\*0007

STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS6  
 CMAL\*TPAS6  
 JPNOT\*TS730  
 ENTSR\*0000  
 STRSR\*TPAR  
 ENTAL\*TPAR

ENTAU\*TPAT1  
 JPALZ\*TS730+1  
 RJP\*TSDIS  
 IJP\*TS73

PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU  
 REMARK\*INCORRECT PATTERN IN AL

0\*  
 ENTALK\*67  
 STRAL\*BUFF1  
 ENTALK\*63  
 STRAL\*BUFF2  
 ENTAL\*TF730+1

ERROR JUMP  
 SET SR TO 2  
 SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT

ERROR JUMP  
 SET SR TO 4  
 SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 7

SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 CLR SR  
 SAVE SR  
 SET AL EQUAL SR

CLR AU  
 EXIT AL ZERO  
 ERROR DISPLAY  
 EXIT

B JUMP 73  
 SET TIMEOUT BUFFER  
 TO CODES FOR 73

SET UP

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B

07267 44 2037 6205  
 07270 10 2146 6206  
 07271 40 7313 6207  
 07272 36 0005 6210  
 07273 76 7302 6211  
 07274 36 0004 6212  
 07275 76 7302 6213  
 07276 36 0007 6214

07277 76 7302 6215  
 07300 36 0002 6216  
 07301 55 7261 6217  
 07302 00 0000 6220  
 07303 73 7311 6221  
 07304 12 7313 6222  
 07305 61 7310 6223  
 07306 76 1742 6224

07307 55 7261 6225  
 07310 55 7302 6226  
 07311 43 7313 6227  
 07312 34 7303 6230  
 07313 00 0000 6231  
 6232  
 6233  
 6234

07323 00 0000 6235  
 07324 70 0067 6236  
 07325 44 2222 6237  
 07326 70 0064 6240  
 07327 44 2223 6241  
 07330 12 7334 6242  
 07331 44 2037 6243  
 6244

07332 40 2253 6245  
 07333 12 2144 6246  
 07334 74 2253 6247  
 07335 10 2253 6250

STRAL\*TFX  
 ENTAU\*TPAT1  
 CL\*TB73  
 ENTBK\*5  
 RJP\*TF730  
 ENTBK\*4  
 RJP\*TF730  
 ENTBK\*7

RJP\*TF730  
 ENTBK\*2  
 IJP\*TF73  
 0\*0  
 BJP\*TF731+1  
 ENTAU\*TB73  
 JPAL2\*TF731  
 RJP\*TFDIS

IJP\*TF73  
 IJP\*TF730  
 STRBB\*TB73  
 JP\*TF730+1  
 RESERV\*10

PROG\*CASEY\*30APL64  
 REMARK\*ERROR DISPLAY, FUNCT. CODE IN C REG.  
 REMARK\*CORRECT PATTERN IN AU

REMARK\*INCORRECT PATTERN IN AL

0\*  
 ENTALK\*67  
 STRAL\*BUFF1  
 ENTALK\*64  
 STRAL\*BUFF2  
 ENTAU\*LOK+4  
 STRAL\*TFX

CL\*TPAR  
 ENTAU\*TPAT  
 STRADR\*TPAR  
 ENTAU\*TPAR

ERROR DISPLAY  
 CORRECT TO AU  
 CLR STORAGE  
 SET B TO 5  
 TEST JUMP  
 SET B TO 4  
 TEST JUMP  
 SET B TO 7

TEST JUMP  
 SET B TO 2  
 EXIT  
 ENT  
 B JUMP  
 CHECK PATTERN  
 AL ZERO EXIT  
 ERROR DISPLAY

ERROR EXIT  
 EXIT SUB  
 STORE PATTERN  
 CHECK B  
 STORAGE AREA

STORE ADDRESS 74  
 SET TYPEOUT BUFFER  
 TO CODES FOR 74

SET UP  
 ERROR DISPLAY

CLR STORAGE  
 SET AL TO 777777  
 TEST FUNC  
 SET AU EQUAL ADDRESS



07336 12 2156 6251  
07337 06 2256 6252

07340 63 7404 6253  
07341 12 2146 6254  
07342 74 2253 6255  
07343 10 2253 6256  
07344 12 2146 6257  
07345 62 7404 6260  
07346 12 2226 6261  
07347 74 2253 6262

07350 10 2253 6263  
07351 12 2226 6264  
07352 06 2256 6265  
07353 63 7404 6266  
07354 12 2227 6267  
07355 74 2253 6270  
07356 10 2253 6271  
07357 12 2227 6272

07360 06 2256 6273  
07361 63 7404 6274  
07362 12 2231 6275  
07363 74 2253 6276  
07364 10 2253 6277  
07365 12 2231 6300  
07366 06 2256 6301  
07367 63 7404 6302

07370 12 2160 6303  
07371 74 2253 6304  
07372 10 2253 6305  
07373 12 2160 6306  
07374 06 2256 6307  
07375 63 7404 6310  
07376 12 2176 6311  
07377 74 2253 6312

07400 10 2253 6313  
07401 12 2176 6314

ENTAL\*TPAT5  
CMSK\*TC01

JPNOT\*TF740  
ENTAL\*TPAT1  
STRADR\*TPAR  
ENTAU\*TPAR  
ENTAL\*TPAT1  
JPAUNZ\*TF740  
ENTAL\*TPAK  
STRADR\*TPAR

ENTAU\*TPAR  
ENTAL\*TPAK  
CMSK\*TC01  
JPNOT\*TF740  
ENTAL\*TPAK1  
STRADR\*TPAR  
ENTAU\*TPAR  
ENTAL\*TPAK1

CMSK\*TC01  
JPNOT\*TF740  
ENTAL\*TPAK3  
STRADR\*TPAR  
ENTAU\*TPAR  
ENTAL\*TPAK3  
CMSK\*TC01  
JPNOT\*TF740

ENTAL\*TPAT6  
STRADR\*TPAR  
ENTAU\*TPAR  
ENTAL\*TPAT6  
CMSK\*TC01  
JPNOT\*TF740  
ENTAL\*TPAB5  
STRADR\*TPAR

ENTAU\*TPAR  
ENTAL\*TPAB5

CORRECT TO AL  
IS AU CORRECT

ERROR JUMP  
CLR AL  
TEST FUNC  
SET AU EQUAL ADDRESS  
CLR AL  
ERROR JUMP  
SET AL TO 002020  
TEST FUNC

SET AU EQUAL ADDRESS  
CORRECT TO AL  
IS AU CORRECT  
ERROR JUMP  
SET AL TO 005050  
TEST FUNC  
SET AU EQUAL ADDRESS  
CORRECT TO AL

IS AU CORRECT  
ERROR JUMP  
SET AL TO 007070  
TEST FUNC  
SET AU EQUAL ADDRESS  
CORRECT TO AL  
IS AU CORRECT  
ERROR JUMP

SET AL TO 707070  
TEST FUNC  
SET AU EQUAL ADDRESS  
CORRECT TO AL  
IS AU CORRECT  
ERROR JUMP  
SET AL TO 010001  
TEST FUNC

SET AU EQUAL ADDRESS  
CORRECT TO AL



07402	06	2256	6315	CMSK*TC01	IS AU CORRECT
07403	61	7406	6316	JPEQ*TF740*2	YES EXIT
07404	50	4722	6317	LSHA*22	EXCHANGE REGS
07405	76	1742	6320	RJP*TFD15	ERROR DISPLAY
07406	55	7323	6321	IJP*TF74	EXIT
			6322	PROG*CASEY*30APL64	
			6323	REMARK*ERROR DISPLAY: FUNCT. CODE IN C REG.	
			6324	REMARK*CORRECT PATTERN IN AU	
			6325	REMARK*INCORRECT PATTERN IN AL	
07407	00	0000	6326	0*	STORE SR 75
07410	70	0067	6327	ENTALK*67	SET TIMEOUT BUFFER
07411	44	2222	6330	STRAL*BUFF1	TO CODES FOR 75
07412	70	0065	6331	ENTALK*65	
07413	44	2223	6332	STRAL*BUFF2	
07414	12	7420	6333	ENTAL*LOK*4	SET UP
07415	44	2037	6334	STRAL*TFX	ERROR DISPLAY
07416	40	2253	6335	CL*TPAR	CLR STORAGE
07417	50	7320	6336	ENTSR*0020	SET SR TO 20
07420	75	2253	6337	STRSR*TPAR	SAVE SR
07421	12	2253	6340	ENTAL*TPAR	SET AL EQUAL TO SR
07422	10	2247	6341	ENTAU*TPAS10	CORRECT TO AU
07423	02	2247	6342	CMAL*TPAS10	IS AL CORRECT
07424	63	7520	6343	JPNOT*TF750	ERROR JUMP
07425	50	7327	6344	ENTSR*0027	SET SR TO 27
07426	75	2253	6345	STRSR*TPAR	SAVE SR
07427	12	2253	6346	ENTAL*TPAR	SET AL EQUAL SR
07430	10	2250	6347	ENTAU*TPAS11	CORRECT TO AU
07431	02	2250	6350	CMAL*TPAS11	IS AL CORRECT
07432	63	7520	6351	JPNOT*TF750	ERROR JUMP
07433	50	7335	6352	ENTSR*0035	SET SR TO 35
07434	75	2253	6353	STRSR*TPAR	SAVE SR
07435	12	2253	6354	ENTAL*TPAR	SET AL EQUAL SR
07436	10	2251	6355	ENTAU*TPAS12	CORRECT TO AU
07437	02	2251	6356	CMAL*TPAS12	IS AL CORRECT
07440	63	7520	6357	JPNOT*TF750	ERROR JUMP
07441	50	7332	6360	ENTSR*0032	SET SR TO 32

07442 75 2253 6361  
 07443 12 2253 6362  
 07444 10 2252 6363  
 07445 02 2252 6364  
 07446 63 7520 6365  
 07447 50 7317 6366

07450 75 2253 6367  
 07451 12 2253 6370  
 07452 10 2240 6371  
 07453 02 2240 6372  
 07454 63 7520 6373  
 07455 50 7304 6374  
 07456 75 2253 6375  
 07457 12 2253 6376

07460 10 2244 6377  
 07461 02 2244 6400  
 07462 63 7520 6401  
 07463 50 7300 6402  
 07464 75 2253 6403  
 07465 12 2253 6404  
 07466 10 2146 6405  
 07467 63 7520 6406

07470 50 7302 6407  
 07471 75 2253 6410  
 07472 12 2253 6411  
 07473 10 2243 6412  
 07474 02 2243 6413  
 07475 63 7520 6414  
 07476 50 7307 6415  
 07477 75 2253 6416

07500 12 2253 6417  
 07501 10 2245 6420  
 07502 02 2245 6421  
 07503 63 7520 6422  
 07504 50 7304 6423  
 07505 75 2253 6424  
 07506 12 2253 6425

STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS13  
 CMAL\*TPAS13  
 JPNOT\*TF750  
 ENTSR\*0017

STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS1  
 CMAL\*TPAS1  
 JPNOT\*TF750  
 ENTSR\*0004  
 STRSR\*TPAR  
 ENTAL\*TPAR

ENTAU\*TPAS5  
 CMAL\*TPAS5  
 JPNOT\*TF750  
 ENTSR\*0000  
 STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAT1  
 JPALNZ\*TF750

ENTSR\*0002  
 STRSR\*TPAR  
 ENTAL\*TPAR  
 ENTAU\*TPAS4  
 CMAL\*TPAS4  
 JPNOT\*TF750  
 ENTSR\*0007  
 STRSR\*TPAR

ENTAL\*TPAR  
 ENTAU\*TPAS6  
 CMAL\*TPAS6  
 JPNOT\*TF750  
 ENTSR\*0004  
 STRSR\*TPAR  
 ENTAL\*TPAR

SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 17

SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 4  
 SAVE SR  
 SET AL EQUAL SR

CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 0  
 SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 ERROR JUMP

SET SR TO 2  
 SAVE SR  
 SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 7  
 SAVE SR

SET AL EQUAL SR  
 CORRECT TO AU  
 IS AL CORRECT  
 ERROR JUMP  
 SET SR TO 4  
 SAVE SR  
 SET AL EQUAL SR

07507	10	2244	6426	ENTAU*TPAS5	CORRECT TO AU
07510	02	2244	6427	CMAL*TPAS5	IS AL CORRECT
07511	63	7520	6430	JPNOT*TF750	ERROR JUMP
07512	50	7317	6431	ENTSR*0017	SAVE SR
07513	75	2253	6432	STRSR*TPAR	STORE SR
07514	12	2253	6433	ENTAL*TPAR	SET AL EQUAL SR
07515	10	2240	6434	ENTAU*TPAS1	CORRECT TO AU
07516	02	2240	6435	CMAL*TPAS1	IS AL CORRECT
07517	61	7521	6436	JPEQ*TF750*1	YES EXIT
07520	76	1742	6437	RJP*TFDIS	ERROR DISPLAY
07521	55	7407	6440	IJP*TF75	EXIT
			6441	PROG*CASEY*30APL64	
			6442	REMARK*ERROR DISPLAY, FUNCT. CODE IN C REG.	
			6443	REMARK*NO DISPLAY IN AU OR AL	
07522	00	0000	6444	0*	RETURN JUMP 76.
07523	70	0067	6445	ENTALK*67	SET TYPEOUT BUFFER
07524	44	2222	6446	STRAL*BUFF1	TO CODES FOR 76
07525	70	0066	6447	ENTALK*66	
07526	44	2223	6450	STRAL*BUFF2	
07527	12	7531	6451	ENTAL*LOK*2	SET UP
07530	44	2037	6452	STRAL*TFX	ERROR DISPLAY
07531	76	7540	6453	RJP*TF760	TEST JUMP
07532	34	7536	6454	JP*TR76	ERROR JUMP
07533	76	7540	6455	RJP*TF760	TEST JUMP
07534	34	7536	6456	JP*TR76	ERROR JUMP
07535	76	7540	6457	RJP*TF760	TEST JUMP
07536	30	7546	6460	IRJP*TF761	ERROR DISPLAY
07537	55	7522	6461	IJP*TF76	EXIT
07540	00	0000	6462	0*	ENTRANCE SUB
07541	12	7540	6463	ENTAL*TF760	RETURN ADDRESS
07542	71	0001	6464	ADDALK*0001	PLUS 1
07543	44	7540	6465	STRAL*TF760	RESTORE
07544	12	2146	6466	ENTAL*TPAT1	CLR AL
07545	55	7540	6467	IJP*TF760	EXIT
07546	00	1742	6470	0*TFDIS	ADDRESS
			6471	REMARK*INSERT SELECTED I/O CHANNEL NUMBER	

07547	00	0000	6472	REMARK*IN ALL I/O COMMANDS.
07550	12	2204	6473	REMARK*MODIFY FOR 1232/1532 INTERCHANGE
07551	50	4203	6474	0*
07552	52	2211	6475	ENTAL*ALPARN
07553	10	2212	6476	RSHAL*3
07554	50	7311	6477	SLCL*K1C
07555	04	0047	6500	ENTAU*K1D
			6501	ENTSR*11
			6502	SLSU*TS1
07556	44	0047	6503	STRAL*TS1
07557	04	0056	6504	SLSU*TS2
07560	44	0056	6505	STRAL*TS2
07561	04	0063	6506	SLSU*TS3
07562	44	0063	6507	STRAL*TS3
07563	04	0065	6510	SLSU*TS4
07564	44	0065	6511	STRAL*TS4
07565	50	7300	6512	ENTSR*0
07566	12	2204	6513	ENTAL*ALPARN
07567	50	4612	6514	LSHAL*10D
07570	52	2213	6515	SLCL*K1E
07571	74	7572	6516	STRADR*LOK*1
07572	36	0000	6517	ENTBK*0
07573	13	7600	6520	ENTALB*TYPE1
07574	50	7311	6521	ENTSR*11
07575	44	0022	6522	STRAL*RN00P
07576	50	7300	6523	ENTSR*0
07577	55	7547	6524	IJP*TYPE
			6525	REMARK*TABLE OF 1232/1532 MODIFIED INSTRUCTIONS
07600	76	0076	6526	RJP*CONVER
07601	71	0040	6527	ADDALK*40
			6530	REMARK*MODIFY OUTPUT AND EXF BUFFERS FOR N+1 TERMINATION
07602	00	0000	6531	0*
07603	50	7311	6532	ENTSR*11
07604	12	0051	6533	ENTAL*TS1+2
07605	71	0001	6534	ADDALK*1
07606	44	0050	6535	STRAL*TS1+1

INITIAL AL INPUT PARAMETER  
CHANNEL NO. TO BITS 5-0  
000037  
777700

INITIAL AL INPUT PARAMETER  
1232/1532 BIT TO BIT 0  
000001

B IS 0 FOR 1232, 1 FOR 1532  
TABLE OF MODIFIED INSTRUCTIONS

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07607	12	0060	6536	ENTAL*TS2+2
07610	71	0001	6537	ADDALK*1
07611	44	0057	6540	STRAL*TS2+1
07612	50	7300	6541	ENTSR*0
07613	12	2021	6542	ENTAL*TFD1+2
07614	71	0001	6543	ADDALK*1
07615	44	2020	6544	STRAL*TFD1+1
07616	44	2031	6545	STRAL*TFD3+1
07617	44	2020	6546	STRAL*TFD1+1
07620	44	2137	6547	STRAL*TS03+1
07621	55	7602	6550	IJP*IOSET
07622	00	0000	6551	0*
07623	00	0000	6552	0*
			6553	REMARK*TYPT FOR 1232 OR 1532
10000	00	0000	6554	0*
10001	75	0042	6555	STRSR*TSPT20
10002	46	0070	6556	STRAU*TSPT3
10003	44	0071	6557	STRAL*TSPT4
10004	42	0072	6560	STRB*TSPT5
10005	70	0003	6561	ENTALK*3
10006	76	0053	6562	RJP*TSPT12
10007	32	0000	6563	ENTB*TYPT
10010	37	0001	6564	ENTBK*1
10011	42	0000	6565	STRB*TYPT
10012	50	7310	6566	ENTSR*10
10013	11	0000	6567	ENTAB*0
10014	50	7300	6570	ENTSR*0
10015	36	0002	6571	ENTBK*2
10016	70	0000	6572	ENTALK*0
10017	50	4706	6573	LSHA*6
10020	02	0073	6574	CMAL*TSPT6
10021	61	0033	6575	JPEQ*TSPT22
10022	71	0040	6576	ADDALK*40
10023	02	0131	6577	CMAL*M136
10024	63	0030	6600	JPNOT*LOK+4
10025	70	0015	6601	ENTALK*15

SAVEU  
SAVEL

TYPT

TSPT1

TSPT2

RN00P

MODIFIED TO RJP\*CONVER IF 1232 SELECTED  
CR-LF?  
NO

CR

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10026	76	0044	6602	RJP*TSPT7	
10027	70	0012	6603	ENTALK*12	LF
10030	76	0044	6604	RJP*TSPT7	
10031	73	0016	6605	TSPT21	BJP*TSPT2
10032	34	0007	6606		JP*TSPT1
10033	70	0001	6607	TSPT22	ENTALK*1
10034	76	0053	6610		RJP*TSPT12
10035	14	0000	6611		ADDAL*TYPT
10036	44	0000	6612		STRAL*TYPT
10037	10	0070	6613		ENTAU*TSPT3
10040	12	0071	6614		ENTAL*TSPT4
10041	32	0072	6615		ENTB*TSPT5
10042	50	7300	6616	TSPT20	ENTSR*0
10043	55	0000	6617		IJP*TYPT
10044	00	0000	6620	TSPT7	0*
10045	76	0062	6621		RJP*TSPT13
10046	44	0075	6622		STRAL*TSPT11
10047	50	1200	6623	TS1	BUFOUT*CHAN*AD*1*TSPT11
10050	01	0075			
10051	01	0075			
10052	55	0044	6624		IJP*TSPT7
10053	00	0000	6625	TSPT12	0*
10054	76	0062	6626		RJP*TSPT13
10055	44	0075	6627		STRAL*TSPT11
10056	50	1300	6630	TS2	EXFCT*CHAN*AD*1*TSPT11
10057	01	0075			
10060	01	0075			
10061	55	0053	6631		IJP*TSPT12
10062	00	0000	6632	TSPT13	0*
10063	50	2300	6633	TS3	SKPFIN*CHAN
10064	34	0063	6634		JP*LOK-1
10065	50	2200	6635	TS4	SKPOIN*CHAN
10066	34	0065	6636		JP*LOK-1
10067	55	0062	6637		IJP*TSPT13
10070	00	0000	6640	TSPT3	0*
10071	00	0000	6641	TSPT4	0*
10072	00	0000	6642	TSPT5	0*

10073	00	0077	6643	T\$PT6	77*	
10074	00	0136	6644	T\$PT61	0*136	
10075	00	0000	6645	T\$PT11	0*	
10076	00	0000	6646	CONVER	0*	
10077	42	0126	6647		STRB*COUNTR	
10100	36	0000	6650		ENTBK*0	
10101	71	0040	6651		ADDALK*40	ADD ASCII BIAS
10102	02	0131	6652		CMAL*M136	CR-LF
10103	63	0110	6653		JPNOT*LOK*8	NO
10104	70	0004	6654		ENTALK*4	CR
10105	76	0044	6655		RJP*T\$PT7	
10106	70	0003	6656		ENTALK*3	LF
10107	34	0124	6657		JP*CONV3	
10110	44	0132	6660		STRAL*MDUM	
10111	13	0133	6661	CONV1	ENTALB*CONST	
10112	52	0127	6662		SLCL*CT177	
10113	50	4211	6663		RSHAL*9D	
10114	02	0132	6664		CMAL*MDUM	
10115	61	0122	6665		JPEG*CONV2	
10116	56	0130	6666		BSK*M76	
10117	34	0111	6667		JP*CONV1	
10120	12	0132	6670		ENTAL*MDUM	
10121	50	5640	6671		STOP*40	
10122	13	0133	6672	CONV2	ENTALB*CONST	
10123	52	0073	6673		SLCL*T\$PT6	
10124	32	0126	6674	CONV3	ENTB*COUNTR	
10125	55	0076	6675		IJP*CONVER	
10126	00	0000	6676	COUNTR	0*	
10127	17	7000	6677	CT177	177000*	
10130	00	0100	6700	M76	000100*	
10131	00	0136	6701	M136	000136*	
10132	00	0000	6702	MDUM	0*	
10133	10	1006	6703	CONST	101006*	
10134	10	2007	6704		102007*	
10135	10	3010	6705		103010*	
10136	10	4011	6706		104011*	

10137	10	5012	6707
10140	10	6013	6710
10141	10	7014	6711
10142	11	0015	6712
10143	11	1016	6713
10144	11	2017	6714
10145	11	3020	6715
10146	11	4021	6716

10147	11	5022	6717
10150	11	6023	6720
10151	11	7024	6721
10152	12	0025	6722
10153	12	1026	6723
10154	12	2027	6724
10155	12	3030	6725
10156	12	4031	6726

10157	12	5032	6727
10160	12	6033	6730
10161	12	7034	6731
10162	13	0035	6732
10163	13	1036	6733
10164	13	2037	6734
10165	01	5004	6735
10166	01	2003	6736

10167	13	7076	6737
10170	05	2050	6740
10171	04	7072	6741
10172	05	6075	6742
10173	04	0005	6743
10174	17	7077	6744
10175	06	0060	6745
10176	06	1061	6746

10177	06	2062	6747
10200	06	3063	6750
10201	06	4064	6751
10202	06	5065	6752

105012*
106013*
107014*
110015*
111016*
112017*
113020*
114021*

115022*
116023*
117024*
120025*
121026*
122027*
123030*
124031*

125032*
126033*
127034*
130035*
131036*
132037*
015004*
012003*

137076*
052050*
047072*
056075*
040005*
177077*
060060*
061061*

062062*
063063*
064064*
065065*



10203	06	6066	6753	066066*
10204	06	7067	6754	067067*
10205	07	0070	6755	070070*
10206	07	1071	6756	071071*
10207	05	0051	6757	050051*
10210	05	1040	6760	051040*
10211	05	3042	6761	053042*
10212	05	4056	6762	054056*
10213	05	5041	6763	055041*
10214	05	7074	6764	057074*
10215	07	2053	6765	072053*
10216	07	3073	6766	073073*
10217	07	4043	6767	074043*
10220	07	5044	6770	075044*
10221	07	6045	6771	076045*
10222	07	7054	6772	077054*
10223	10	0057	6773	100057*
10224	04	4047	6774	044047*
10225	05	2050	6775	052050*
10226	13	5046	6776	135046*
10227	13	4001	6777	134001*
10230	04	5002	7000	045002*
10231	04	2052	7001	042052*
10232	04	1055	7002	041055*
10233	13	6050	7003	136050*
			7004	ENDATA*

## LABELS AND ADDRESSES

ALPARM	02204	BUFF1	02222	BUFF2	02223	BUFF3	02224	BUFF4	02225
COMA	01500	COMA1	01541	COMA10	01600	COMA11	01611	COMA2	01733
COMA3	01535	COMA4	01543	COMA5	01734	COMA6	01614	COMA7	01735
CONST	10133	CONV1	10111	CONV2	10122	CONV3	10124	CONVER	10076
COUNTR	10126	C1	01527	C2	01576	C3	01610	CHAN	00000
CNT	01740	CT177	10127	IOSET	07602	K1	02205	K1A	02206
K1B	02207	K1C	02211	K1D	02212	K1E	02213	K1F	02215
K1G	02216	K2	02210	K3	02214	K4	02217	K5	02220
K6	02221	M136	10131	M76	10130	MDUM	10132	NYMB	01741
PASSC	01736	RN00P	10022	SAVEB	02275	SAVEL	07623	SAVEU	07622
SCCNT	02274	SRERRF	01737	TS1	10047	TS2	10056	TS3	10063
TS4	10065	TSPT1	10007	TSPT11	10075	TSPT12	10053	TSPT13	10062
TSPT2	10016	TSPT20	10042	TSPT21	10031	TSPT22	10033	TSPT3	10070
TSPT4	10071	TSPT5	10072	TSPT6	10073	TSPT61	10074	TSPT7	10044
TB73	07313	TC0	02254	TC01	02256	TC02	02260	TC03	02261
TC04	02262	TC61	06512	TC612	06524	TC63	06662	TC632	06674
TC65	06735	TC652	06750	TC67	07012	TC672	07025	TCUT	02264
TCUT1	02265	TCUT2	02266	TCUT3	02267	TCUT4	02270	TCUT5	02271
TCUT6	02272	TCUT7	02273	TELM	02666	TF02	02310	TF022	02324
TF024	02334	TF025	02346	TF03	02365	TF032	02403	TF04	02425
TF05	02501	TF06	02563	TF063	02600	TF065	02612	TF07	02624
TF072	02643	TF074	02652	TF10	02667	TF100	02736	TF11	02740
TF110	03012	TF12	03014	TF120	03063	TF13	03065	TF130	03136
TF14	03140	TF142	03153	TF145	03163	TF15	03165	TF152	03202
TF16	03217	TF162	03232	TF17	03253	TF172	03267	TF20	03300
TF202	03314	TF204	03325	TF21	03337	TF213	03354	TF22	03372
TF222	03406	TF224	03427	TF23	03431	TF232	03446	TF24	03462
TF242	03474	TF244	03511	TF25	03523	TF252	03537	TF254	03550
TF26	03562	TF263	03600	TF27	03634	TF272	03652	TF30	03662
TF301	03706	TF302	03700	TF31	03707	TF310	03745	TF311	03720
TF312	03721	TF313	03725	TF314	03731	TF315	03732	TF316	03737
TF317	03743	TF32	03753	TF320	04042	TF33	04044	TF330	04134
TF34	04136	TF35	04166	TF36	04213	TF360	04301	TF37	04303
TF370	04373	TF40	04376	TF40T	04427	TF41	04437	TF42	04560
TF420	04646	TF43	04706	TF430	04766	TF44	05040	TF440	05117

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TF45	05207	TF450	05275	TF46	05336	TF460	05415	TF47	05456
TF470	05544	TF51	05600	TF510	05637	TF511	05643	TF52	05711
TF53	06004	TF55	06150	TF551	06163	TF552	06166	TF553	06171
TF56	06241	TF560	06310	TF57	06312	TF570	06322	TF60	06360
TF602	06371	TF604	06374	TF61	06441	TF612	06453	TF614	06456
TF62	06531	TF622	06544	TF624	06547	TF63	06604	TF632	06617
TF634	06622	TF64	06701	TF642	06712	TF65	06717	TF652	06730
TF66	06756	TF662	06767	TF67	06774	TF672	07005	TF70	07033
TF700	07101	TF71	07103	TF712	07117	TF73	07261	TF730	07302
TF731	07310	TF74	07323	TF740	07404	TF75	07407	TF750	07520
TF76	07522	TF760	07540	TF761	07546	TFD1	02017	TFD2	02022
TFD3	02030	TFD4	02033	TFD15	01742	TFDIS1	02014	TFDIS2	02002
TFSH1	02276	TFSH2	02302	TFX	02037	TPAB	02164	TPAB1	02166
TPAB2	02170	TPAB3	02172	TPAB4	02174	TPAB5	02176	TPAB6	02200
TPAB7	02202	TPAK	02226	TPAK1	02227	TPAK2	02230	TPAK3	02231
TPAK4	02232	TPAK5	02233	TPAK6	02234	TPAK7	02235	TPAR	02253
TPAS	02237	TPAS1	02240	TPAS10	02247	TPAS11	02250	TPAS12	02251
TPAS13	02252	TPAS2	02241	TPAS3	02242	TPAS4	02243	TPAS5	02244
TPAS6	02245	TPAS7	02246	TPAT	02144	TPAT1	02146	TPAT2	02150
TPAT3	02152	TPAT4	02154	TPAT5	02156	TPAT6	02160	TPAT7	02162
TR03	02413	TR04	02467	TR040	02471	TR041	02473	TR043	02475
TR044	02477	TR05	02551	TR050	02553	TR051	02555	TR052	02557
TR053	02561	TR30	03676	TR31	03746	TR34	04160	TR35	04211
TR40	04435	TR41	04521	TR52	05747	TR531	06047	TR532	06045
TR55	06173	TR57	06354	TR76	07536	TS41	04523	TS411	04540
TS412	04542	TS413	04545	TS42	04650	TS421	04665	TS422	04667
TS423	04673	TS43	04770	TS431	05006	TS432	05010	TS433	05014
TS434	05021	TS435	05023	TS436	05027	TS44	05122	TS441	05140
TS443	05147	TS445	05165	TS45	05300	TS451	05316	TS453	05322
TS46	05417	TS461	05435	TS462	05441	TS47	05546	TS471	05563
TS472	05565	TS51	05646	TS512	05666	TS52	05752	TS522	05774
TS53	06052	TS532	06074	TS54	06104	TS544	06137	TS545	06124
TS55	06175	TS551	06213	TS552	06215	TS556	06230	TS60	06402
TS602	06423	TS61	06463	TS612	06502	TS62	06555	TS622	06574
TS63	06630	TS632	06650	TS73	07135	TS730	07257	TSC0T	02307
TS01	02125	TSD2	02130	TSD3	02136	TSD4	02141	TSDIS	02040

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TSDIS1 02121

TSDIS2 02107

TSH 02306

TYPE 07547

TYPE1 07600

TYPT 10000

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